October 31, 2024
File No. 27224048.00

Mr. Mick Leat
Iowa Department of Natural Resources
Land Quality Bureau
6200 Park Avenue
Des Moines, Iowa 50321

Subject: 2024 Annual Water Quality Report
2024 Leachate Control System Performance Evaluation Report
Climax Molybdenum Industrial Landfill
Permit No. 56-SDP-06-80P

Dear Mick:

SCS Engineers has completed the required groundwater monitoring and statistical evaluation at the Climax Molybdenum Industrial Landfill (Landfill) for the 2024 calendar year. Our services were performed in general accordance with Iowa Administrative Code (IAC) 567-115.26 and the landfill permit requirements for implementation of the Hydrologic Monitoring System Plan (HMSP). Please find enclosed a copy of the 2024 Annual Water Quality Report and 2024 Leachate Control System Performance Evaluation Report for the Landfill.

Additionally, an evaluation of the leachate control system for the site is included in accordance with IAC 567-115.26. The 2024 Leachate Control System Performance Evaluation Report for the site is included as Appendix F to the Annual Water Quality Report.

If you have any questions about these reports, please contact us as noted below.

Sincerely,

Semir Omerovic
Technical Associate
SCS Engineers
somerovic@scsengineers.com
(515) 988-3237

Kevin Jensen
Project Manager
SCS Engineers
kjensen@scsengineers.com
(515) 368-3155

SO/KAJ/NO/TCB

cc: David Caskey, Climax Molybdenum Company
Denae Rutherford, Climax Molybdenum Company
Jessi Woods, Climax Molybdenum Company
Libby Boyer, Climax Molybdenum Company

2024 Annual Water Quality Report, Leachate Control System Performance Evaluation Report

Climax Molybdenum Industrial Landfill
Solid Waste Permit No. 56-SDP-06-80P

Prepared for:

Climax Molybdenum Company

SCS ENGINEERS

27224048.00 | October 2024

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

CERTIFICATION

Prepared by: _____ Date: 10/31/2024

Typed: Semir Omerovic

Reviewed by: _____ Date: 10/31/2024

Typed: Timothy C. Buelow, P.E.

Certification page (115.26(8)"d")

An annual report summarizing the effect of the facility on groundwater and surface water quality shall be submitted to the department each year. The summary is to be prepared by an engineer registered in the state of Iowa.

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

_____ Date: 10/31/2024

Timothy C. Buelow, P.E.

License No. 14445

My license renewal date is December 31, 2025.

Pages or sheets covered by this seal:

All except Appendix B-1.

EXECUTIVE SUMMARY

ES.1 PERIOD OF REPORT COVERAGE

SCS Engineers (SCS), on behalf of the Climax Molybdenum Company (CMC), has completed the required groundwater sampling for the Climax Molybdenum Company Industrial Landfill (Landfill). The purpose of this Annual Water Quality Report (AWQR) is to document and statistically evaluate the groundwater sampling results since the 2023 AWQR up to and including the spring and fall 2024 semiannual sampling events. This AWQR was prepared in accordance with the requirements of Iowa Administrative Code (IAC) 567-115.26, the site permit, and current requirements for implementation of the Hydrologic Monitoring System Plan (HMSP).

ES.2 REPORT PRIORITY

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

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

ES.3 SITE STATUS AND APPLICABLE RULES

- Monofill Status: Active, Operating Permit.
- Types of waste accepted: Industrial (gypsum waste).
- Applicable IAC rules: 567-115.26.

ES.4 COMMENTS

The following summarizes points of special emphasis:

- Concentrations of the analyzed parameters in groundwater at the Landfill continue to demonstrate generally stable concentrations, with limited exceptions associated with monitoring wells TW-2 and MW-21. Additionally, monitoring well MW-11 exhibits elevated concentrations of a number of parameters compared to other monitoring wells at the Landfill. Parameter concentrations measured in monitoring well MW-11 samples are generally stable to declining. As discussed in Section 5.1, concentrations of chloride, lithium, sodium, specific conductance, strontium, and sulfate in monitoring well MW-21 have notably decreased since the repair activities were performed to the leachate collection system in June 2021 (Doc # 101625). Groundwater quality at monitoring well MW-21 will continue to be evaluated in future reports.

Table of Contents

Section Page

Tables

Figures

Appendices

1.0 ACRONYMS/ABBREVIATIONS

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

2.0 SITE BACKGROUND

2.1 SITE LOCATION

The Climax Molybdenum Company Industrial Landfill (Landfill) is depicted in Figure 1, Approved Monitoring Network. The Landfill property is located on a 244-acre plot of land west of Iowa Highway 394, 2 miles north of Argyle, Iowa. The legal description is as follows: Northwest ¼ and West ½ of the Northeast ¼ and South 150 feet of the East ½ of the Northeast ¼ of Section 32, Township 67 North, Range 6 West, Lee County, Iowa.

2.2 FACILITY

This Landfill has been a permitted facility since 1980 and has been actively receiving industrial gypsum waste since that time on a periodic basis. According to Janice Calvert, Lee County Assessor, prior to CMC purchasing the Landfill property in 1980, the area was used for agricultural purposes. No county zoning exists within Lee County.

2.3 GEOLOGY AND HYDROGEOLOGY OF THE SITE

The following information pertaining to this section was obtained from the Hydrogeologic Investigation Report and Hydrologic Monitoring System Plan prepared by Green Environmental Service, Inc., February 1992:

> *The uppermost material is a layer of clayey silt with minor amounts of sand. This material is windblown silt and sand, called loess. It blankets the hilltops to a maximum depth of 13.5 feet. Silty materials that are probably loess were reported at B-4, M-1, MW-2, MW-3, and MW-6. Silty materials at MW-4 and MW-5 may be loess or colluvium (slopewash). Silty alluvium occurs in the valleys, and was encountered at B-1, B-1A, B-2, MW-1, MW-12, and MW-14. A six-inch layer of sand and gravel was encountered in the base of the alluvium at MW-12. Three feet of sand occurred below silt in the alluvium at B-1. The next lower material encountered in the borings is glacial till. The till is a very sandy, clayey silt, trace (<10%) gravel. Material in the gravel size range includes minerals such as quartz; also igneous, sedimentary, and metamorphic rock fragments. A minimum of 80 to 85 feet of till occur below the waste disposal area. Small, isolated sand lenses were encountered in the till in borings M-1, MW-1, and MW-2. None of the other borings encountered sand lenses. Shale bedrock was encountered at 504 feet MSL in MW-1, 526 feet MSL in MW-2, and 519 feet MSL in MW-6. MW-1 penetrated 17 feet of shale (probably of the Warsaw Shale), then encountered 11 feet of limestone, 1.5 feet of shale, and 17.5 feet of limestone. MW-1 was screened in silty material above the shale. MW-2 through MW-6 are screened in sands and silts above the shale.*
>
> *Southwest and northeast of the landfill, the bedrock rises to an elevation of 600 feet MSL and consists of the Meramec Series (Upper Mississippian aquifer). Thus, the landfill property is situated over the midslope region of the buried landscape, within a broad channel, near its confluence with the Gordon Channel. The Kinderhook Series is the upper unit east of the landfill, along the channel axis. The Keokuk and Burlington limestones and the upper part of the Kinderhook Series comprise the Lower Mississippian aquifer.*

2.4 HYDROLOGY OF THE SITE

The following information pertaining to this section was obtained from the Hydrogeologic Investigation Report and Hydrologic Monitoring System Plan prepared by Green Environmental Service, Inc., February 1992:

> *At MW-11, the alluvium is saturated. Since the water level in MW-12 (which is screened deeper, in the till) is higher than in MW-11, the till is saturated throughout. In other words, the saturated zone in the alluvium is not perched. MW-13 is screened below the alluvium, but the water level has stabilized at a level above the alluvium/till contact. Therefore, the saturated zone in the alluvium is not perched. No perched saturated zone was observed in the immediate vicinity of the waste disposal area. Head differences were calculated between the shallow and mid-level wells and between the mid-level and deep wells of the triple clusters. These were all downward. One gradient was calculated for each double cluster. Flow was upward at the double clusters. The horizontal hydraulic gradients vary from 0.016 to 0.080, and the shallow vertical gradients vary from 0.008 to 0.031, while the deeper vertical gradients were 0.255 and 0.467. Vertical flow rates downward through the deep till are 2.1×10^{-5} and 5.3×10^{-5} f^3/d. (The other vertical values are intermediate between the horizontal values and deep unweathered till values). Thus, the groundwater is more likely to flow horizontally in the shallow sediments than vertically downward through the unweathered till.*
>
> *Transmissivity is defined as the hydraulic conductivity multiplied by the aquifer thickness. For unconfined aquifers, only the saturated thickness is considered. Transmissivities are often reported for aquitards, however, the hydraulic conductivity has more significance. The transmissivities have been calculated using in-situ conductivities. The transmissivities vary from 0.005 to 2.15 f^2/d. The lowest values are in deep and mid-level wells screened in till. Good aquifers for domestic use should have a transmissivity of 1,400 f^2/d. Aquifers used for municipal water supply, industry, or irrigation should have a transmissivity of 14,000 f^2/d or higher. Thus, none of the materials screened at the landfill would serve even as a domestic water supply aquifer.*
>
> *Flow tends to be nearly horizontal in materials with high conductivity and nearly vertical in materials with low conductivity. There would be a sharp refraction at the contact of till, loess, or alluvium over glacial till. The larger volume of water would flow laterally in the overlying material, and a smaller volume would move downward. The decrease of hydraulic conductivity downward within the glacial till is gradual, as root holes, animal burrows, fractures, etc. die out with depth. Instead of a sharp refraction, the flow lines and equipotential lines would bend gradually. The net result is the same, with flow lines at a shallow angle in materials with higher hydraulic conductivity and nearly vertical in materials with lower conductivity. This scenario, derived from consideration of groundwater flow theory, is observed at the landfill. The shallow flow pattern is nearly parallel to or converging toward the water table or upward. Any leakage from the base of the landfill would be captured in the upper flow pattern.*
>
> *The deeper part of the glacial till is an aquitard. This is shown by the low in-situ hydraulic conductivities, vertical flow rates, and transmissivities. The steep vertical flow paths also show that the deep till is an aquitard. Over 80 feet of till protect the underlying buried channel and bedrock aquifers. None of the materials present at the site would qualify as aquifers for water supply wells because of low transmissivities.*

However, the shallow sediments are 100-fold more conductive to groundwater flow than the deep till. These shallow sediments include alluvium and shallow till. The higher in-situ hydraulic conductivities and horizontal flow rates show that these materials constitute the uppermost aquifer. The shallow vertical flow paths also show that the shallow sediments function as an aquifer. Small, isolated sand lenses are not aquifers.

3.0 FIGURES DISCUSSION

The following figures are attached.

3.1 FIGURE 1 – APPROVED MONITORING NETWORK

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

3.2 FIGURE 2 – GROUNDWATER CONTOURS

A groundwater contour map based on water levels measured in the water table aquifer during the July 30, 2024 semiannual groundwater sampling event is included as **Figure 2**. **Figure 2** indicates a generally southerly flow direction. Leachate elevations are shown on the figure but were not included in the contour development. The leachate elevations are slightly higher than the interpolated groundwater contours, however, a southerly flow direction is maintained.

4.0 QA/QC SUMMARY

Date indicates the date(s) of sampling.

4.1 MAY 22, 2024 (2024 SPRING SAMPLING EVENT)

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

4.2 JULY 30, 2024 (2024 FALL SAMPLING EVENT)

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

5.0 DATA EVALUATION

Statistical evaluation in accordance with the requirements of IAC 567-115.26 was conducted for the groundwater analytical data collected during the May and July 2024 semiannual sampling events. The statistical evaluation for samples collected during the 2024 semiannual sampling events is located in **Appendix D** of this report.

5.1 DATA EVALUATION

Groundwater monitoring for the Landfill consists of samples from two upgradient monitoring wells located on the northeast and northwest corners of the Landfill and from six downgradient monitoring wells, three located along the southern border of the closed landfill cell, one located along the southern border of the active cell, one located adjacent to the leachate collection lift station, and one located southeast of the leachate storage lagoon.

There were 20 control limit exceedances detected based on spring and fall 2024 sampling results as listed in Table 1 compared to 20 control limit exceedances detected based on spring and fall 2023 sampling results reported in the 2023 AWQR, not counting total suspended solids. Most of the control limit exceedances detected based on 2024 sampling results were attributed to monitoring wells MW-11 and MW-21. The control limit exceedances measured in monitoring well MW-11 may have been influenced by total suspended solids (TSS) in the sample.

Exceedances of action or advisory levels were largely associated with lithium, manganese, and sodium as listed in Table 9. The action or advisory levels for lithium, manganese, and sodium were also exceeded in upgradient monitoring well MW-7 and the action or advisory levels for lithium, selenium, and sodium were exceeded in upgradient monitoring well MW-18R based on a review of concentrations listed in the Summary of Groundwater Chemistry in Appendix C. These three constituents have generally exceeded the regulatory action or advisory levels established for this Landfill at most monitoring wells since sampling for these constituents began. The detection of these constituents above action or advisory levels in the upgradient monitoring wells indicates that these constituents may be naturally occurring at these levels at the site.

Groundwater quality at monitoring well MW-21 has continued to demonstrate stability since modifications were made to the leachate collection system in June 2021 (Doc # 101625). Concentrations of chloride, lithium, sodium, specific conductance, strontium, and sulfate measured at MW-21 during both 2024 sampling events were below or comparable to concentrations measured in both 2023 sampling events and were well below the recent maximum concentrations measured in 2020 or spring 2021 before the modifications were made. Selenium has recently been detected slightly above the reporting limit at monitoring well MW-21; however, the concentrations measured have been well below the action limit for selenium and below the concentrations measured in upgradient monitoring well MW-18R.

5.2 TRENDING IN MONITORING WELLS

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

Monitoring Point	Constituent	Trend
MW-21	Chloride	Decreasing
MW-21	Sodium	Decreasing
TW-2	Chloride	Increasing
TW-2	Sulfate	Increasing

As indicated in the above table, the increasing trends are in the analytical data from monitoring well TW-2. The concentrations comprising these trends were reviewed relative to the concentrations in the background monitoring wells and the following indicated:

Monitoring Point	Constituent
TW-2/Chloride:	Concentrations slightly higher than both background monitoring wells and below downgradient monitoring wells MW-11 and MW-21.
TW-2/Sulfate:	Concentrations higher than both background monitoring wells, but similar to downgradient monitoring well MW-17 and below downgradient monitoring wells MW-16 and MW-21.

Although not necessarily statistically significant, the Mann-Kendall statistics can provide an indication of general trending in the data. Trend indications for wells in the monitoring program are shown in the table below. The statistics used to develop the general trending differ from the Mann-Kendall statistics used in the diagnostics section of the statistical evaluation in that a much lower trend threshold is applied for the general trending information (α=0.20 versus α=0.01). Trends classified as decreasing or increasing exhibited a statistically significant trend with 80% confidence using the most recent eight data points. Trends classified as stable did not exhibit a statistically significant trend with 80% confidence using the eight most recent data points. A summary of Mann-Kendall statistics by constituent in each monitoring point is included in **Appendix E** of this report.

Trending in Monitoring Wells				
Monitoring Well	**Decreasing Trends**	**Stable Trends**	**Increasing Trends**	**Number of Constituents Analyzed**
MW-7 (u)	8.33%	91.67%	0.00%	12
MW-11	16.67%	83.33%	0.00%	12
MW-15	22.22%	77.78%	0.00%	9
MW-16	20.00%	80.00%	0.00%	10
MW-17	9.09%	90.91%	0.00%	11
MW-18R (u)	10.00%	90.00%	0.00%	10
MW-21	54.55%	36.36%	9.09%	11
TW-2	0.00%	55.56%	44.44%	9
Site Wide	**17.86%**	**76.19%**	**5.95%**	**102**

(u) indicates an upgradient monitoring point.

Review of the Mann-Kendall statistics indicated that approximately 94% of the Mann-Kendall statistics were considered stable or decreasing following the 2024 annual statistical evaluation. There were 5 monitoring well/constituent pairs with generally increasing trends. The monitoring well/constituent pairs with increasing trends are discussed in the following table.

Monitoring Well	Constituent Name	Comments
MW-21	Selenium	Based on two actual detections, one J flag detection and five non-detects. The most recent sampling events included the actual detections and J flag detections. Highest concentration of 0.00649 mg/L measured in fall 2024.
TW-2	Chloride	Based on eight actual detections. Highest concentration of 13.6 mg/L measured in fall 2024.
TW-2	Selenium	Based on eight actual detections. Highest concentration of 0.0161 mg/L measured in fall 2023.
TW-2	Specific Conductance	Based on eight measurements. Range of measurements between 1063.7 – 1366.8 µS/cm. Highest concentration of 1366.8 µS/cm measured in spring 2024.
TW-2	Sulfate	Based on eight actual detections. Highest concentration of 379 mg/L measured in fall 2024.

There were 5 increasing trends measured at an 80% confidence level in 2024 compared to 13 increasing trends measured at an 80% confidence level in 2023. It should be noted that constituent concentrations found to be increasing at an 80% confidence level in monitoring well TW-2 were largely within or comparable to concentrations measured in upgradient monitoring wells MW-7 and MW-18R, with the exception of sulfate.

6.0 RECOMMENDATIONS

6.1 SITE IMPACT ON GROUNDWATER

Concentrations of the analyzed parameters in groundwater at the Landfill continue to demonstrate generally stable concentrations, with limited exceptions associated with monitoring wells TW-2 and MW-21. Additionally, monitoring well MW-11 exhibits elevated concentrations of a number of parameters compared to other monitoring wells at the Landfill. Parameter concentrations measured in monitoring well MW-11 samples are generally stable to declining. The total number of control limit exceedances based on 2024 sampling results were equal to the total number of control limit exceedances based on the 2023 sampling results; however, the total number of increasing trends measured at an 80% confidence level based on 2024 sampling results were less than half of the total number of increasing trends measured at an 80% confidence level based on 2023 sampling results. As discussed in Section 5.1, concentrations of chloride, lithium, sodium, specific conductance, strontium, and sulfate in monitoring well MW-21 have notably decreased since the repair activities were performed to the leachate collection system in June 2021 (Doc # 101625). Groundwater quality at monitoring well MW-21 will continue to be evaluated in future reports.

6.2 PROPOSED MONITORING

The groundwater monitoring program is summarized in Table 1. Sampling will transition from TW-2 to TW-3 after the planned construction of phases 4, 5, and 6 anticipated in spring 2025. It is recommended that sampling continue for calendar year 2025 as summarized in Table 2.

6.3 PROPOSED MONITORING WELL CHANGES

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

Tables

Table 1
Monitoring Program Summary
2024 Annual Water Quality Report
Climax Molybdenum Company Industrial Landfill
Permit No. 56-SDP-06-80P

Monitoring Well	Formation[1]	Current Monitoring Program	Change for Next Sampling Event	Control Limit Exceedances	Total Number of Samples in Each Monitoring Program Since January 1, 2018		
					Routine	Supplemental	Remedial Action
MW-7 (upgradient)	Yellow-Brown Till	Background	None		14	-	-
MW-11	Fill over Gray Alluvium	Detection	None	Arsenic, COD, Iron, Manganese, Nitrogen-Ammonia, Sodium, Specific Conductance	14	-	-
MW-15	Sandy/Clay/Silt - Yellow-Brown Till	Detection	None		14	-	-
MW-16	Fill over Gray Alluvium over Yellow Brown Till	Detection	None	pH, Specific Conductance, Sulfate	14	-	-
MW-17	Boring Log Not Found	Detection	None	Lithium, Sulfate	14	-	-
MW-18R (upgradient)	Brown Silt/Sand over Yellow Brown Till	Background	None		14		
MW-21	Brown Sandy/Clay, Trace Sand/Gravel	Detection	None	Chloride, Sodium, Specific Conductance, Strontium, Sulfate	14	-	-
TW-2	Sandy/Clay/Silt - Yellow-brown	Detection	None	Lithium, Sodium, Sulfate	14	-	-

Notes:
[1] Obtained from screened interval on boring logs.

Table 2
Monitoring Program Implementation Schedule
2024 Annual Water Quality Report
Climax Molybdenum Company Industrial Landfill
Permit No. 56-SDP-06-80P

Monitoring Well	Recent Sampling Dates and Constituents		Upcoming Sampling Dates and Constituents	
	5/22/24	7/30/24	2025 Spring Event	2025 Fall Event
MW-7	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS
MW-11	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS
MW-15	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS
MW-16	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS
MW-17	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS
MW-18R	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS
MW-21	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS
TW-2/TW-3	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS	115.26(4)"e" parameters, supplemental parameters, TSS

Notes: Supplemental parameters include concentrations of total arsenic, cadmium, iron, lithium, manganese, molybdenum, selenium, sodium, strontium, and sulfate.
TSS – Total Suspended Solids.
Sampling will transition from TW-2 to TW-3 after the planned construction of phases 4, 5, and 6 anticipated in spring 2025.

Table 3
Monitoring Well Maintenance and Performance Re-Evaluation Schedule
2024 Annual Water Quality Report
Climax Molybdenum Company Industrial Landfill
Permit No. 56-SDP-06-80P

Compliance with:	2022	2023	2024	2025
567 IAC 114.21(2)"a" high and low water levels (annually)	Completed	Completed	Included	Scheduled
567 IAC 114.21(2)"b" changes in the hydrologic setting and flow paths	Completed	Completed	Included	Scheduled
567 IAC 114.21(2)"c" well depths	Completed	Completed	Included	Scheduled
567 IAC 114.21(2)"d" well recharge rates [1]		Completed		Scheduled

Notes:

[1] In-situ permeability testing was replaced with biennial well recharge rate evaluation in DNR correspondence dated April 29, 2019 (Doc# 95000).

Table 4
Monitoring Well Performance and Maintenance Summary
2024 Annual Water Quality Report
Climax Molybdenum Company Industrial Landfill
Permit No. 56-SDP-06-80P

Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements 7/30/2024	Maximum Depth Discrepancy (ft)
MW-7	669.6	654.1	30.1	Groundwater Level (ft)	12.91	0.5
				Groundwater Elevation (Ft MSL)	656.72	
				Measured Well Depth (ft)	30.60	
				Submerged screen	Y	
MW-11	659.6	637.8	32.5	Groundwater Level (ft)	22.37	0.6
				Groundwater Elevation (Ft MSL)	637.21	
				Measured Well Depth (ft)	33.10	
				Submerged screen	N	
MW-15	659.5	649.5	25.7	Groundwater Level (ft)	16.50	-0.5
				Groundwater Elevation (Ft MSL)	642.96	
				Measured Well Depth (ft)	25.20	
				Submerged screen	N	
MW-16	659.3	644.6	30.5	Groundwater Level (ft)	21.84	0.0
				Groundwater Elevation (Ft MSL)	637.48	
				Measured Well Depth (ft)	30.50	
				Submerged screen	N	
MW-17	664.3	627.3	47.0	Groundwater Level (ft)	28.93	-6.6
				Groundwater Elevation (Ft MSL)	635.37	
				Measured Well Depth (ft)	40.40	
				Submerged screen	Y	
MW-18R	686.8	663.7	43.3	Groundwater Level (ft)	32.88	0.0
				Groundwater Elevation (Ft MSL)	653.88	
				Measured Well Depth (ft)	43.30	
				Submerged screen	N	
MW-21	660.7	639.2	31.5	Groundwater Level (ft)	17.78	0.2
				Groundwater Elevation (Ft MSL)	642.88	
				Measured Well Depth (ft)	31.70	
				Submerged screen	Y	
TW-2	662.4	644.9	28.0	Groundwater Level (ft)	10.42	0.2
				Groundwater Elevation (Ft MSL)	651.94	
				Measured Well Depth (ft)	28.20	
				Submerged screen	Y	

Comments:

1) Measured well depths were within 1.0 foot of the installed depths where measured with the following exceptions:
   MW-17: This monitoring well was measured 6.6 ft shallower than when originally installed; however, since the monitoring well produced sufficient ground water for sampling it is likely that the well is functioning properly. It should be noted that during the 2024 spring sampling event well depth was measeured at 46.9 ft; therefore a measurement error during the 2024 fall sampling event likely occured.

Table 5
Background and GWPS Summary
2024 Annual Water Quality Report
Climax Molybdenum Company Industrial Landfill
Permit No. 56-SDP-06-80P

Interwell Background/GWPS (MW-7, MW-18R)

Constituent	Units	Sampling Events	Detections	Control Limit	Statistical Test	Action Level	Source
Inorganics							
Arsenic	mg/L	41	14	0.0060	M+2SD	0.01 mg/L	MCL/SWS
Cadmium	mg/L	41	8	0.010	M+2SD	0.005 mg/L	MCL/SWS
Chemical Oxygen Demand	mg/L	126	91	20.9	M+2SD		
Chloride	mg/L	132	132	43.3	M+2SD		
Iron	mg/L	42	30	6.735	M+2SD		
Lithium	mg/L	41	41	0.038	M+2SD	0.014 mg/L	SWS
Manganese	mg/L	41	27	3.29	M+2SD	0.3 mg/L	HAL/SWS
Molybdenum	mg/L	42	23	0.029	M+2SD	0.04 mg/L	HAL/SWS
Nitrogen, Ammonia	mg/L	132	52	0.309	M+2SD	30.0 mg/L	HAL
pH	S.U.	131	131	6.44 - 7.46	M+/-2SD		
Selenium	mg/L	42	25	0.101	M+2SD	0.05 mg/L	MCL/SWS
Sodium	mg/L	42	42	76.9	M+2SD	20.0 mg/L	DWA
Specific Conductance	µS/cm	131	131	1423	M+2SD		
Strontium	mg/L	41	41	0.782	M+2SD	4.0 mg/L	HAL/SWS
Sulfate	mg/L	126	126	224.8	M+2SD		

Notes: None.

Acronyms/Abbreviations:
RL = Reporting Limit
GWPS = Groundwater Protection Standard
SSS = Site-Specific GWPS
SWS = Statewide Standard
SD = Standard Deviation
MCL = EPA Maximum Contaminant Level
PL = Prediction Limits
HAL = Health Advisory Level
DWA = Drinking Water Advisory

Comments:

1) **Water quality results and effectiveness of the statistical data evaluation criteria**: Statistical evaluations consist of control limits which consist of the upgradient mean plus two standard deviations (plus and minus two standard deviations for pH).

2) **Changes to the previous statistical method during reporting period:** None.

Table 6

Summary of Well/Detected Constituent Pairs With No Immediately Preceding Control Limit Exceedances

2024 Annual Water Quality Report

Climax Molybdenum Company Industrial Landfill

Permit No. 56-SDP-06-80P

2024 Spring Sampling Event

Well	Constituent	Units	Result	Background Standard
MW-11	Specific Conductance	µS/cm	1440	1425

Note: Table includes control limit exceedance identified during the 2024 sampling events that were not identified as a control limit exceedances in the previous reporting period.

Comments:

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

Table 7
Summary Table of Ongoing and Newly Identified Control Limit Exceedances
2024 Annual Water Quality Report
Climax Molybdenum Company Industrial Landfill
Permit No. 56-SDP-06-80P

Key

Denotes ongoing control limit exceedances that were identified as control limit exceedances during this reporting period and the previous reporting period at least once during each reporting period.

Denotes newly identified control limit exceedances in the 2024 reporting period. Newly identified is defined as occuring at least once in the current reporting period but not in the immediately preceeding reporting period.

Well	Constituent	Units	Most Recent Result	Background Standard	Action Level/ Statewide Standard
MW-11	Arsenic	mg/L	0.0101	0.005953	0.01
	Chemical Oxygen Demand	mg/L	141	20.91	-
	Iron	mg/L	42.4	6.735	-
	Manganese	mg/L	4.63	3.291	0.3
	Nitrogen-Ammonia	mg/L	6.39	0.3085	30
	Sodium	mg/L	82.7	76.88	20
	Specific Conductance	µS/cm	1296	1423	-
MW-16	pH	S.I.	6.24	6.44 - 7.46	-
	Specific Conductance	µS/cm	1493	1423	-
	Sulfate	mg/L	449	224.8	-
MW-17	Lithium	mg/L	0.0734	0.03762	0.014
	Sulfate	mg/L	354	224.8	-
MW-21	Chloride	mg/L	79.9	43.25	-
	Sodium	mg/L	90.8	76.88	20
	Specific Conductance	µS/cm	2009	1423	-
	Strontium	mg/L	0.826	0.7822	4
	Sulfate	mg/L	553	224.8	-
TW-2	Lithium	mg/L	0.0442	0.03762	0.014
	Sodium	mg/L	81.7	76.88	20
	Sulfate	mg/L	379	224.8	-

Notes: None.

Comments:

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

Table 8
Summary of Groundwater Chemistry
2024 Annual Water Quality Report
Climax Molybdenum Company Industrial Landfill
Permit No. 56-SDP-06-80P

The Summary of Groundwater Chemistry is located in Appendix C.

Table 9
Historical Control Limit & Action Level Exceedances
2024 Annual Water Quality Report
Climax Molybdenum Company Industrial Landfill
Permit No. 56-SDP-06-80P

Key

	Control Limit Exceedance
X	Action Level Exceedance

Well	Constituent	2021	2022	2023	2024
MW-11	Arsenic				X
	Chemical Oxygen Demand				
	Chloride				
	Iron				
	Manganese	X	X	X	X
	Nitrogen-Ammonia				
	pH				
	Sodium	X	X	X	X
	Specific Conductance				
	Sulfate				
MW-15	Lithium	X	X	X	X
	Sodium	X	X	X	X
	Sulfate				
MW-16	Lithium	X	X	X	X
	Manganese	X	X		
	pH				
	Sodium	X	X	X	X
	Specific Conductance				
	Sulfate				
MW-17	Lithium	X	X	X	X
	Manganese	X	X	X	X
	Nitrogen-Ammonia				
	Sodium	X	X	X	X
	Sulfate				
MW-21	Chemical Oxygen Demand				
	Chloride				
	Lithium	X	X	X	X
	Manganese	X	X		
	Sodium	X	X	X	X
	Specific Conductance				
	Strontium				
	Sulfate				
TW-2	Lithium	X	X	X	X
	Sodium	X	X	X	X
	Sulfate				

Comments: Action level exceedances for upgradeint monitoring wells not included.

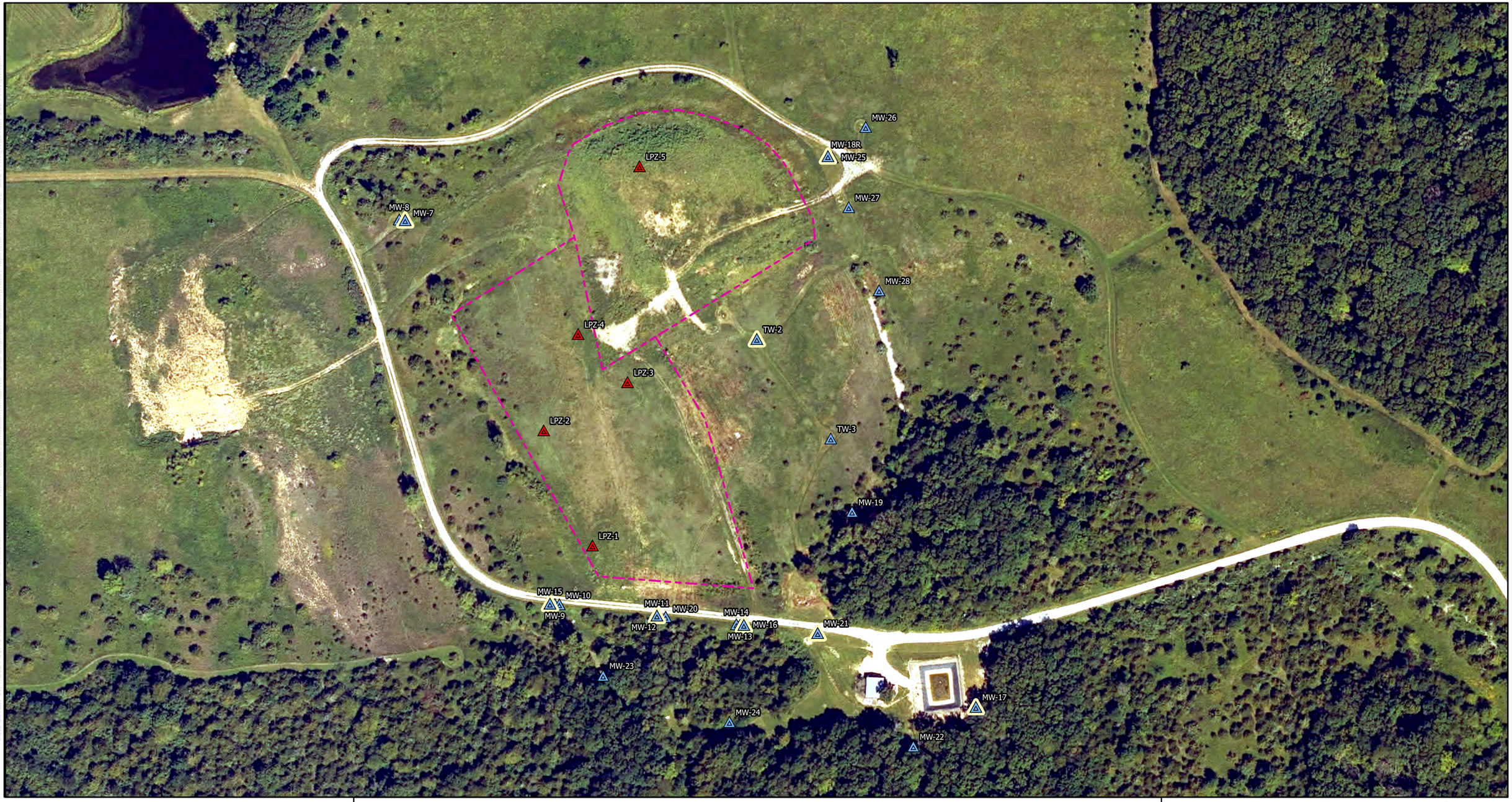
Table 10
Groundwater Quality Assessment Plan Trend Analysis
2024 Annual Water Quality Report
Climax Molybdenum Company Industrial Landfill
Permit No. 56-SDP-06-80P

Monitoring Well	Constituent Name	Calculated Statistic		
		Decreasing Trend	Stable Trend	Increasing Trend
MW-21	Cadmium		-1	
	Chemical Oxygen Demand		8	
	Chloride	-24		
	Lithium	-17		
	Manganese		-6	
	pH		5	
	Selenium			14
	Sodium	-28		
	Specific Conductance	-20		
	Strontium	-20		
	Sulfate	-20		

Notes:

1) In accordance with the DNR letter dated December 2, 2021 (Doc # 101799), trend analyses for MW-21 have been included to aid in the evaluation of the assessment efforts performed in June 2021.
2) Trending was evaluated using Mann-Kendall analysis at 80% confidence (a=0.2) for the entire historical dataset.

Figures



Approved Monitoring Network

Legend

- HMSP Monitoring Well
- Approximate Monitoring Well Location
- Approximate Leachate Monitoring Location
- Approximate Waste Boundary
- Approximate Property Boundary

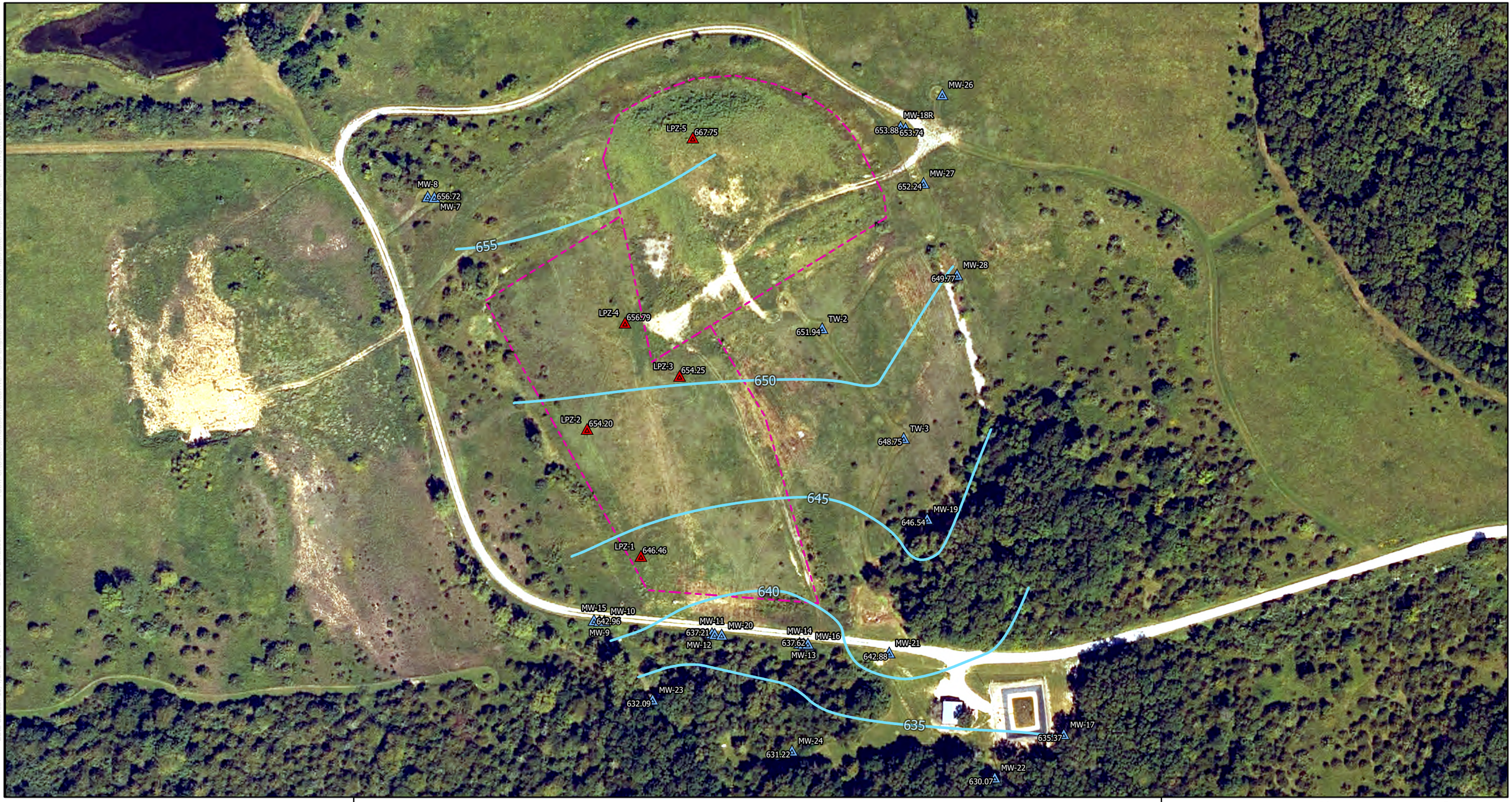
Climax Molybdenum
Industrial Landfill
Argyle, Iowa
Project No: 27224048.00
Drawing Date: October 2024

Figure 1

N
W E
S

0 80 160 320 480
Feet

SCS ENGINEERS
environmental consultants and contractors



Groundwater Contours

Legend

- Approximate Groundwater Contours Based on Field Measurments Taken July 30, 2024
- Approximate Monitoring Well Location
- Approximate Leachate Monitoring Location
- Approximate Waste Boundary
- Approximate Property Boundary

Climax Molybdenum
Industrial Landfill
Argyle, Iowa
Project No: 27224048.00
Drawing Date: October 2024

Figure 2

N
W E
S

0 70 140 280 420 Feet

SCS ENGINEERS
environmental consultants and contractors

Esri, CGIAR, USGS, Esri, TomTom, Garmin, Foursquare, FAO, METI/NASA, USGS, USDA NAIP, Iowa State University GIS Facility

Appendix A

Field Sampling Forms

FORM FOR GROUNDWATER SAMPLING

Project:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-7**	Date:	**5/22/2024**
Gradient:	Up	Sampler:	Tyler Stirling

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):	30.3
Initial Static Water Level (feet):	9.30
Initial Groundwater Elevation (ft-amsl):	660.33
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 (FNU)	
4:23 PM	Purging start time.						
4:26 PM	13.7	0.61	1235.3	6.73	13.7	25.8	
4:29 PM	13.9	0.35	1233.7	6.69	0.0	23.9	
4:32 PM	13.9	0.27	1236.9	6.68	-8.3	23.9	
4:35 PM	13.8	0.22	1237.5	6.67	-14.1	25.0	
	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, very small black suspended particles. Odor: Strong smell

FORM FOR GROUNDWATER SAMPLING

Project:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-11**	Date:	**5/23/2024**
Gradient:	Down	Sampler:	Tyler Stirling

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):	31.9
Initial Static Water Level (feet):	20.02
Initial Groundwater Elevation (ft-amsl):	639.56
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)	
9:16 AM	Purging start time.						
9:19 AM	13.8	0.77	1427.8	6.56	-2.3	31.1	
9:22 AM	14.9	0.41	1424.6	6.52	-7.6	23.5	
9:25 AM	14.3	0.30	1431.2	6.51	-10.0	27.9	
9:28 AM	14.7	0.26	1439.9	6.50	-11.5	27.0	
	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: Sulfur

FORM FOR GROUNDWATER SAMPLING

Project:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-15**	Date:	**5/22/2024**
Gradient:	Down	Sampler:	Tyler Stirling

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):	25.0
Initial Static Water Level (feet):	14.24
Initial Groundwater Elevation (ft-amsl):	645.22
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 (FNU)	
3:44 PM	Purging start time.						
3:47 PM	13.2	5.58	887.8	7.05	196.4	32.2	
3:50 PM	13.1	5.49	882.1	6.98	198.1	38.0	
3:53 PM	13.1	5.53	877.9	6.95	199.0	38.9	
3:56 PM	13.1	5.39	870.5	6.94	199.3	50.7	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.3
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	191.67

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:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-16**	Date:	**5/22/2024**
Gradient:	Down	Sampler:	Tyler Stirling

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):	30.3
Initial Static Water Level (feet):	19.69
Initial Groundwater Elevation (ft-amsl):	639.77
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)	
3:07 PM	Purging start time.						
3:10 PM	14.8	1.83	1635.6	6.27	206.0	24.6	
3:13 PM	15.2	1.42	1624.6	6.25	204.5	22.7	
3:16 PM	14.7	1.29	1627.3	6.25	203.4	25.4	
3:19 PM	14.8	1.14	1619.2	6.24	202.5	21.3	
	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 Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-17**	Date:	**5/23/2024**
Gradient:	Down	Sampler:	Tyler Stirling

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):	46.9
Initial Static Water Level (feet):	27.57
Initial Groundwater Elevation (ft-amsl):	636.73
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)	
10:37 AM	Purging start time.						
10:40 AM	13.8	0.52	1482.7	6.97	-22.4	61.9	
10:43 AM	14.9	0.40	1432.0	6.92	-20.6	41.7	
10:46 AM	14.3	0.38	1406.1	6.91	-19.7	49.7	
10:49 AM	14.7	0.38	1370.3	6.90	-18.9	35.0	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.6
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	173.33

D. WELL MAINTENANCE

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

Additional Comments:	Color: Clear; Odor: Sulfur Duplicate sample collected

FORM FOR GROUNDWATER SAMPLING

Project:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-18R**	Date:	**5/23/2024**
Gradient:	Up	Sampler:	Tyler Stirling

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):	43.0
Initial Static Water Level (feet):	32.92
Initial Groundwater Elevation (ft-amsl):	653.84
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)	
9:56 AM	Purging start time.						
9:59 AM	17.0	3.36	963.5	7.00	107.4	46.1	
10:02 AM	18.8	3.18	961.8	6.94	109.1	35.0	
10:05 AM	14.2	3.21	944.4	6.94	111.1	35.0	
10:08 AM	14.3	3.36	945.8	6.92	114.0	32.3	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.3
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	191.67

D. WELL MAINTENANCE

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

Additional Comments:	Color: Clear Odor: Sulfur

FORM FOR GROUNDWATER SAMPLING

Project:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-21**	Date:	**5/23/2024**
Gradient:	Down	Sampler:	Tyler Stirling

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):	31.4
Initial Static Water Level (feet):	14.90
Initial Groundwater Elevation (ft-amsl):	645.76
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)	
8:37 AM	Purging start time.						
8:40 AM	14.4	1.11	2108.5	6.60	166.7	26.1	
8:43 AM	13.8	0.61	2114.8	6.56	165.1	40.2	
8:46 AM	13.8	0.43	2107.7	6.55	161.4	28.7	
8:49 AM	13.8	0.33	2108.6	6.55	157.5	30.2	
	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:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**TW-2**	Date:	**5/22/2024**
Gradient:	Down	Sampler:	Tyler Stirling

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):	27.6
Initial Static Water Level (feet):	7.81
Initial Groundwater Elevation (ft-amsl):	654.55
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)	
5:06 PM	Purging start time.						
5:09 PM	14.2	2.91	1357.4	7.06	104.6	26.6	
5:12 PM	14.5	2.69	1366.1	6.99	107.7	26.7	
5:15 PM	14.3	2.62	1367.3	6.96	109.3	30.1	
5:18 PM	14.3	2.59	1366.8	6.95	110.6	27.4	
	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:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-7**	Date:	**7/30/2024**
Gradient:	Up	Sampler:	Cole Tesar

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):	30.6
Initial Static Water Level (feet):	12.91
Initial Groundwater Elevation (ft-amsl):	656.72
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)	
3:15 PM	Purging start time.						
3:18 PM	16.1	1.30	1104.7	6.61	-82.8	315.3	
3:21 PM	15.9	0.20	1104.7	6.64	-90.7	42.9	
3:24 PM	16.1	0.10	1105.8	6.67	-111.9	18.4	
3:27 PM	15.9	<0.01	1109.2	6.69	-129.0	386.2	
	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; Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-11**	Date:	**7/31/2024**
Gradient:	Down	Sampler:	Cole Tesar

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):	22.37
Initial Groundwater Elevation (ft-amsl):	637.21
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)	
5:37 PM	Purging start time.						
5:40 PM	19.5	1.26	1375.2	6.48	-137.5	117.3	
5:43 PM	16.3	<0.01	1308.4	6.49	-146.0	355.7	
5:46 PM	16.4	<0.01	1297.7	6.53	-146.1	251.8	
5:49 PM	14.8	<0.01	1296.0	6.54	-145.1	188.0	
	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: Orange; Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-15**	Date:	**7/30/2024**
Gradient:	Down	Sampler:	Cole Tesar

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):	25.2
Initial Static Water Level (feet):	16.50
Initial Groundwater Elevation (ft-amsl):	642.96
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)	
3:48 PM	Purging start time.						
3:51 PM	16.3	3.57	920.0	6.99	-0.6	2.7	
3:54 PM	16.4	3.35	908.7	6.99	22.4	7.7	
3:57 PM	16.9	3.44	903.0	6.97	36.2	14.6	
4:00 PM	17.6	3.65	897.6	6.95	47.3	24.9	
	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; Odor: None Duplicate sample collected

FORM FOR GROUNDWATER SAMPLING

Project:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-16**	Date:	**7/31/2024**
Gradient:	Down	Sampler:	Cole Tesar

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):	30.5
Initial Static Water Level (feet):	21.84
Initial Groundwater Elevation (ft-amsl):	637.62
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)	
4:59 PM	Purging start time.						
5:02 PM	17.4	1.74	1519.0	6.49	53.8	2.4	
5:05 PM	17.2	1.49	1507.6	6.53	57.5	4.1	
5:08 PM	17.5	1.46	1498.3	6.53	61.5	8.9	
5:11 PM	17.9	2.09	1493.2	6.50	68.0	10.8	
	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:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-17**	Date:	**7/31/2024**
Gradient:	Down	Sampler:	Cole Tesar

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):	40.4
Initial Static Water Level (feet):	28.93
Initial Groundwater Elevation (ft-amsl):	635.37
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)	
3:48 PM	Purging start time.						
3:51 PM	14.8	0.40	1387.5	7.21	-265.8	17.4	
3:54 PM	15.3	0.07	1388.6	7.17	-256.1	35.7	
3:57 PM	16.4	0.02	1374.6	7.13	-245.2	54.0	
4:00 PM	15.5	<0.01	1353.3	7.11	-234.6	68.0	
	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; Odor: Swampy

FORM FOR GROUNDWATER SAMPLING

Project:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-18R**	Date:	**7/30/2024**
Gradient:	Up	Sampler:	Cole Tesar

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):	43.3
Initial Static Water Level (feet):	32.88
Initial Groundwater Elevation (ft-amsl):	653.88
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)	
2:14 PM	Purging start time.						
2:17 PM	14.8	5.52	851.2	6.80	150.3	12.7	
2:20 PM	14.9	5.15	853.4	6.80	151.6	10.1	
2:23 PM	14.9	5.01	850.4	6.82	152.4	21.9	
2:26 PM	14.0	5.11	850.2	6.86	152.2	37.1	
	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):	12:00
Average Purge Rate (mL/min):	225.00

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

Additional Comments:	Color: Clear; Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**MW-21**	Date:	**7/31/2024**
Gradient:	Down	Sampler:	Cole Tesar

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):	31.7
Initial Static Water Level (feet):	17.78
Initial Groundwater Elevation (ft-amsl):	642.88
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)	
4:21 PM	Purging start time.						
4:24 PM	17.8	0.48	2131.7	6.54	-25.4	14.5	
4:27 PM	17.8	0.17	2091.8	6.58	-21.7	45.6	
4:30 PM	17.7	0.08	2044.6	6.60	-18.8	133.4	
4:33 PM	18.2	0.07	2009.4	6.60	-17.7	167.9	
	Parameters stabilized, sample collected.						

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

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

Additional Comments:	Color: Clear; Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**CLIMAX MOLYBDENUM INDUSTRIAL LANDFILL**		
Monitoring Well/Piezometer ID:	**TW-2**	Date:	**7/31/2024**
Gradient:	Down	Sampler:	Cole Tesar

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):	10.42
Initial Groundwater Elevation (ft-amsl):	651.94
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)	
3:10 PM	Purging start time.						
3:13 PM	16.4	3.43	1268.1	6.96	145.9	0.7	
3:16 PM	16.5	2.63	1275.2	6.94	146.8	3.0	
3:19 PM	16.3	2.46	1280.7	6.95	145.9	8.2	
3:22 PM	16.3	2.38	1277.5	6.96	145.0	19.5	
	Parameters stabilized, sample collected.						

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

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

Additional Comments:	Color: Clear; Odor: None

Appendix B-1

Laboratory Analytical Data Sheets

eurofins | Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/7/2024 10:23:24 AM

JOB DESCRIPTION

Climax Molyb Landfill Sampling Spring 2024

JOB NUMBER

310-282095-1

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
6/7/2024 10:23:24 AM

Authorized for release by
Mary Yang, Project Management Assistant I
Mary.Yang@ET.EurofinsUS.com
(319)277-2401

Table of Contents

Job ID: 310-282095-1 Eurofins Cedar Falls

Job Narrative
310-282095-1

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 are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample 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 5/24/2024 4:30 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 1.4°C.

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
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-282095-1	MW-7	Water	05/22/24 16:35	05/24/24 16:30
310-282095-2	MW-11	Water	05/23/24 09:28	05/24/24 16:30
310-282095-3	MW-15	Water	05/22/24 15:56	05/24/24 16:30
310-282095-4	MW-16	Water	05/22/24 15:19	05/24/24 16:30
310-282095-5	MW-17	Water	05/23/24 10:50	05/24/24 16:30
310-282095-6	MW-18R	Water	05/23/24 10:08	05/24/24 16:30
310-282095-7	MW-21	Water	05/23/24 08:49	05/24/24 16:30
310-282095-8	TM-2	Water	05/22/24 17:19	05/24/24 16:30
310-282095-9	MW-D	Water	05/23/24 10:50	05/24/24 16:30
310-282095-10	Leachate Sump	Water	05/23/24 11:30	05/24/24 16:30

Detection Summary

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-7 — Lab Sample ID: 310-282095-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.30	J	5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	82.4		5.00	2.10	mg/L	5		9056A	Total/NA
Iron	6.23		0.100	0.0360	mg/L	1		6020B	Total/NA
Manganese	2.33		0.0100	0.00360	mg/L	1		6020B	Total/NA
Arsenic	0.00283		0.00200	0.000530	mg/L	1		6020B	Total/NA
Sodium	63.7		1.00	0.480	mg/L	1		6020B	Total/NA
Lithium	0.0236		0.0100	0.00250	mg/L	1		6020B	Total/NA
Strontium	0.552		0.00100	0.000530	mg/L	1		6020B	Total/NA
Ammonia as N	0.539		0.500	0.210	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	14.2		5.00	4.80	mg/L	1		5220D LL	Total/NA
Total Suspended Solids	12.7		5.00	3.70	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-11 — Lab Sample ID: 310-282095-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21.0		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	39.9		5.00	2.10	mg/L	5		9056A	Total/NA
Iron	30.2		0.100	0.0360	mg/L	1		6020B	Total/NA
Manganese	5.35		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	0.00157	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Arsenic	0.00459		0.00200	0.000530	mg/L	1		6020B	Total/NA
Sodium	82.8		1.00	0.480	mg/L	1		6020B	Total/NA
Lithium	0.00674	J	0.0100	0.00250	mg/L	1		6020B	Total/NA
Strontium	0.604		0.00100	0.000530	mg/L	1		6020B	Total/NA
Selenium	0.00149	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Ammonia as N	4.34		0.500	0.210	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	71.9		5.00	4.80	mg/L	1		5220D LL	Total/NA
Total Suspended Solids	58.0		15.0	11.1	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-15 — Lab Sample ID: 310-282095-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.91	J	5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	67.7		5.00	2.10	mg/L	5		9056A	Total/NA
Molybdenum	0.00134	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Sodium	36.1		1.00	0.480	mg/L	1		6020B	Total/NA
Lithium	0.0239		0.0100	0.00250	mg/L	1		6020B	Total/NA
Strontium	0.360		0.00100	0.000530	mg/L	1		6020B	Total/NA
Selenium	0.00194	J	0.00500	0.00140	mg/L	1		6020B	Total/NA

Client Sample ID: MW-16 — Lab Sample ID: 310-282095-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.61		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	394		5.00	2.10	mg/L	5		9056A	Total/NA
Manganese	0.194		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	0.00199	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Cadmium	0.000166	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Sodium	73.2		1.00	0.480	mg/L	1		6020B	Total/NA
Lithium	0.0232		0.0100	0.00250	mg/L	1		6020B	Total/NA
Strontium	0.667		0.00100	0.000530	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-17
Lab Sample ID: 310-282095-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.03		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	292		5.00	2.10	mg/L	5		9056A	Total/NA
Manganese	0.447		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	0.00173	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Sodium	62.9		1.00	0.480	mg/L	1		6020B	Total/NA
Lithium	0.0685		0.0100	0.00250	mg/L	1		6020B	Total/NA
Strontium	0.637		0.00100	0.000530	mg/L	1		6020B	Total/NA
Selenium	0.0167		0.00500	0.00140	mg/L	1		6020B	Total/NA

Client Sample ID: MW-18R
Lab Sample ID: 310-282095-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.36		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	49.1		5.00	2.10	mg/L	5		9056A	Total/NA
Manganese	0.00457	J	0.0100	0.00360	mg/L	1		6020B	Total/NA
Sodium	51.4		1.00	0.480	mg/L	1		6020B	Total/NA
Lithium	0.0305		0.0100	0.00250	mg/L	1		6020B	Total/NA
Strontium	0.307		0.00100	0.000530	mg/L	1		6020B	Total/NA
Selenium	0.0516		0.00500	0.00140	mg/L	1		6020B	Total/NA
Ammonia as N	0.375	J	0.500	0.210	mg/L	1		350.1	Total/NA
Total Suspended Solids	2.00		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-21
Lab Sample ID: 310-282095-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	71.8		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	590		20.0	8.40	mg/L	20		9056A	Total/NA
Manganese	0.0253		0.0100	0.00360	mg/L	1		6020B	Total/NA
Sodium	91.0		1.00	0.480	mg/L	1		6020B	Total/NA
Lithium	0.0250		0.0100	0.00250	mg/L	1		6020B	Total/NA
Strontium	0.826		0.00100	0.000530	mg/L	1		6020B	Total/NA
Selenium	0.00334	J	0.00500	0.00140	mg/L	1		6020B	Total/NA

Client Sample ID: TM-2
Lab Sample ID: 310-282095-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.3		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	353		5.00	2.10	mg/L	5		9056A	Total/NA
Sodium	80.7		1.00	0.480	mg/L	1		6020B	Total/NA
Lithium	0.0372		0.0100	0.00250	mg/L	1		6020B	Total/NA
Strontium	0.427		0.00100	0.000530	mg/L	1		6020B	Total/NA
Selenium	0.0129		0.00500	0.00140	mg/L	1		6020B	Total/NA

Client Sample ID: MW-D
Lab Sample ID: 310-282095-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.06		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	282		5.00	2.10	mg/L	5		9056A	Total/NA
Manganese	0.318		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	0.00166	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Sodium	61.8		1.00	0.480	mg/L	1		6020B	Total/NA
Lithium	0.0643		0.0100	0.00250	mg/L	1		6020B	Total/NA
Strontium	0.603		0.00100	0.000530	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample ID: MW-D (Continued)
Lab Sample ID: 310-282095-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.0220		0.00500	0.00140	mg/L	1		6020B	Total/NA

Client Sample ID: Leachate Sump
Lab Sample ID: 310-282095-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	52.3		10.0	4.50	mg/L	10		9056A	Total/NA
Sulfate	2350		100	42.0	mg/L	100		9056A	Total/NA
Iron	13.8		0.100	0.0360	mg/L	1		6020B	Total/NA
Manganese	1.84		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	7.08		0.0140	0.00910	mg/L	7		6020B	Total/NA
Arsenic	0.0445		0.00200	0.000530	mg/L	1		6020B	Total/NA
Cadmium	0.00182		0.00140	0.000700	mg/L	7		6020B	Total/NA
Sodium	467		7.00	3.36	mg/L	7		6020B	Total/NA
Lithium	0.0151		0.0100	0.00250	mg/L	1		6020B	Total/NA
Strontium	0.898		0.00700	0.00371	mg/L	7		6020B	Total/NA
Selenium	0.738		0.00500	0.00140	mg/L	1		6020B	Total/NA
Chemical Oxygen Demand	32.7		5.00	4.80	mg/L	1		5220D LL	Total/NA
Total Suspended Solids	494		15.0	11.1	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-7
Lab Sample ID: 310-282095-1
Date Collected: 05/22/24 16:35
Matrix: Water
Date Received: 05/24/24 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.30**	**J**	5.00	2.25	mg/L			06/04/24 11:41	5
Sulfate	**82.4**		5.00	2.10	mg/L			06/04/24 11:41	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**6.23**		0.100	0.0360	mg/L		05/30/24 09:00	05/31/24 17:33	1
Manganese	**2.33**		0.0100	0.00360	mg/L		05/30/24 09:00	05/31/24 17:33	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		05/30/24 09:00	05/31/24 17:33	1
Arsenic	**0.00283**		0.00200	0.000530	mg/L		05/30/24 09:00	05/31/24 17:33	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/30/24 09:00	05/31/24 17:33	1
Sodium	**63.7**		1.00	0.480	mg/L		05/30/24 09:00	05/31/24 17:33	1
Lithium	**0.0236**		0.0100	0.00250	mg/L		05/30/24 09:00	05/31/24 17:33	1
Strontium	**0.552**		0.00100	0.000530	mg/L		05/30/24 09:00	06/03/24 22:33	1
Selenium	<0.00500		0.00500	0.00140	mg/L		05/30/24 09:00	05/31/24 17:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	**0.539**		0.500	0.210	mg/L		06/04/24 11:39	06/04/24 18:07	1
Chemical Oxygen Demand (SM 5220D LL)	**14.2**		5.00	4.80	mg/L			05/30/24 10:23	1
Total Suspended Solids (USGS I-3765-85)	**12.7**		5.00	3.70	mg/L			05/28/24 13:38	1

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-11
Lab Sample ID: 310-282095-2
Date Collected: 05/23/24 09:28
Matrix: Water
Date Received: 05/24/24 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.0		5.00	2.25	mg/L			06/04/24 12:19	5
Sulfate	39.9		5.00	2.10	mg/L			06/04/24 12:19	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	30.2		0.100	0.0360	mg/L		05/30/24 09:00	05/31/24 17:44	1
Manganese	5.35		0.0100	0.00360	mg/L		05/30/24 09:00	05/31/24 17:44	1
Molybdenum	0.00157	J	0.00200	0.00130	mg/L		05/30/24 09:00	05/31/24 17:44	1
Arsenic	0.00459		0.00200	0.000530	mg/L		05/30/24 09:00	05/31/24 17:44	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/30/24 09:00	05/31/24 17:44	1
Sodium	82.8		1.00	0.480	mg/L		05/30/24 09:00	05/31/24 17:44	1
Lithium	0.00674	J	0.0100	0.00250	mg/L		05/30/24 09:00	05/31/24 17:44	1
Strontium	0.604		0.00100	0.000530	mg/L		05/30/24 09:00	06/05/24 22:02	1
Selenium	0.00149	J	0.00500	0.00140	mg/L		05/30/24 09:00	05/31/24 17:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	4.34		0.500	0.210	mg/L		06/04/24 11:39	06/04/24 18:09	1
Chemical Oxygen Demand (SM 5220D LL)	71.9		5.00	4.80	mg/L			05/30/24 10:23	1
Total Suspended Solids (USGS I-3765-85)	58.0		15.0	11.1	mg/L			05/29/24 10:13	1

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-15
Lab Sample ID: 310-282095-3
Date Collected: 05/22/24 15:56
Matrix: Water
Date Received: 05/24/24 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.91**	**J**	5.00	2.25	mg/L			06/04/24 12:32	5
Sulfate	**67.7**		5.00	2.10	mg/L			06/04/24 12:32	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100	0.0360	mg/L		05/30/24 09:00	05/31/24 17:46	1
Manganese	<0.0100		0.0100	0.00360	mg/L		05/30/24 09:00	05/31/24 17:46	1
Molybdenum	**0.00134**	**J**	0.00200	0.00130	mg/L		05/30/24 09:00	05/31/24 17:46	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/30/24 09:00	05/31/24 17:46	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/30/24 09:00	05/31/24 17:46	1
Sodium	**36.1**		1.00	0.480	mg/L		05/30/24 09:00	05/31/24 17:46	1
Lithium	**0.0239**		0.0100	0.00250	mg/L		05/30/24 09:00	05/31/24 17:46	1
Strontium	**0.360**		0.00100	0.000530	mg/L		05/30/24 09:00	06/05/24 22:06	1
Selenium	**0.00194**	**J**	0.00500	0.00140	mg/L		05/30/24 09:00	05/31/24 17:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500	0.210	mg/L		06/04/24 11:39	06/04/24 17:14	1
Chemical Oxygen Demand (SM 5220D LL)	<5.00		5.00	4.80	mg/L			05/30/24 10:23	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			05/28/24 13:38	1

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-16
Lab Sample ID: 310-282095-4
Date Collected: 05/22/24 15:19
Matrix: Water
Date Received: 05/24/24 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.61**		5.00	2.25	mg/L			06/04/24 12:44	5
Sulfate	**394**		5.00	2.10	mg/L			06/04/24 12:44	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100	0.0360	mg/L		05/30/24 09:00	05/31/24 17:48	1
Manganese	**0.194**		0.0100	0.00360	mg/L		05/30/24 09:00	05/31/24 17:48	1
Molybdenum	**0.00199**	**J**	0.00200	0.00130	mg/L		05/30/24 09:00	05/31/24 17:48	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/30/24 09:00	05/31/24 17:48	1
Cadmium	**0.000166**	**J**	0.000200	0.000100	mg/L		05/30/24 09:00	05/31/24 17:48	1
Sodium	**73.2**		1.00	0.480	mg/L		05/30/24 09:00	05/31/24 17:48	1
Lithium	**0.0232**		0.0100	0.00250	mg/L		05/30/24 09:00	05/31/24 17:48	1
Strontium	**0.667**		0.00100	0.000530	mg/L		05/30/24 09:00	06/05/24 22:09	1
Selenium	<0.00500		0.00500	0.00140	mg/L		05/30/24 09:00	05/31/24 17:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500	0.210	mg/L		06/04/24 09:44	06/04/24 16:05	1
Chemical Oxygen Demand (SM 5220D LL)	<5.00		5.00	4.80	mg/L			05/30/24 10:23	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			05/28/24 13:38	1

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-17
Lab Sample ID: 310-282095-5
Date Collected: 05/23/24 10:50
Matrix: Water
Date Received: 05/24/24 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.03**		5.00	2.25	mg/L			06/04/24 12:57	5
Sulfate	**292**		5.00	2.10	mg/L			06/04/24 12:57	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100	0.0360	mg/L		05/30/24 09:00	05/31/24 17:59	1
Manganese	**0.447**		0.0100	0.00360	mg/L		05/30/24 09:00	05/31/24 17:59	1
Molybdenum	**0.00173**	**J**	0.00200	0.00130	mg/L		05/30/24 09:00	05/31/24 17:59	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/30/24 09:00	05/31/24 17:59	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/30/24 09:00	06/03/24 23:09	1
Sodium	**62.9**		1.00	0.480	mg/L		05/30/24 09:00	05/31/24 17:59	1
Lithium	**0.0685**		0.0100	0.00250	mg/L		05/30/24 09:00	05/31/24 17:59	1
Strontium	**0.637**		0.00100	0.000530	mg/L		05/30/24 09:00	06/05/24 22:13	1
Selenium	**0.0167**		0.00500	0.00140	mg/L		05/30/24 09:00	05/31/24 17:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500	0.210	mg/L		06/04/24 11:39	06/04/24 18:10	1
Chemical Oxygen Demand (SM 5220D LL)	<5.00		5.00	4.80	mg/L			05/30/24 10:23	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			05/29/24 10:13	1

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-18R
Lab Sample ID: 310-282095-6
Date Collected: 05/23/24 10:08
Matrix: Water
Date Received: 05/24/24 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.36**		5.00	2.25	mg/L			06/04/24 13:09	5
Sulfate	**49.1**		5.00	2.10	mg/L			06/04/24 13:09	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100	0.0360	mg/L		05/30/24 09:00	05/31/24 18:01	1
Manganese	**0.00457**	**J**	0.0100	0.00360	mg/L		05/30/24 09:00	05/31/24 18:01	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		05/30/24 09:00	05/31/24 18:01	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/30/24 09:00	05/31/24 18:01	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/30/24 09:00	06/03/24 23:12	1
Sodium	**51.4**		1.00	0.480	mg/L		05/30/24 09:00	05/31/24 18:01	1
Lithium	**0.0305**		0.0100	0.00250	mg/L		05/30/24 09:00	05/31/24 18:01	1
Strontium	**0.307**		0.00100	0.000530	mg/L		05/30/24 09:00	06/05/24 22:31	1
Selenium	**0.0516**		0.00500	0.00140	mg/L		05/30/24 09:00	05/31/24 18:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	**0.375**	**J**	0.500	0.210	mg/L		06/04/24 11:39	06/04/24 18:09	1
Chemical Oxygen Demand (SM 5220D LL)	<5.00		5.00	4.80	mg/L			05/30/24 10:23	1
Total Suspended Solids (USGS I-3765-85)	**2.00**		1.88	1.39	mg/L			05/29/24 10:13	1

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-21
Lab Sample ID: 310-282095-7
Date Collected: 05/23/24 08:49
Matrix: Water
Date Received: 05/24/24 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**71.8**		5.00	2.25	mg/L			06/04/24 13:22	5
Sulfate	**590**		20.0	8.40	mg/L			06/05/24 09:48	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100	0.0360	mg/L		05/30/24 09:00	05/31/24 18:04	1
Manganese	**0.0253**		0.0100	0.00360	mg/L		05/30/24 09:00	05/31/24 18:04	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		05/30/24 09:00	05/31/24 18:04	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/30/24 09:00	05/31/24 18:04	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/30/24 09:00	06/03/24 23:16	1
Sodium	**91.0**		1.00	0.480	mg/L		05/30/24 09:00	05/31/24 18:04	1
Lithium	**0.0250**		0.0100	0.00250	mg/L		05/30/24 09:00	05/31/24 18:04	1
Strontium	**0.826**		0.00100	0.000530	mg/L		05/30/24 09:00	06/05/24 22:35	1
Selenium	**0.00334**	**J**	0.00500	0.00140	mg/L		05/30/24 09:00	05/31/24 18:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500	0.210	mg/L		06/04/24 09:44	06/04/24 16:02	1
Chemical Oxygen Demand (SM 5220D LL)	<5.00		5.00	4.80	mg/L			05/30/24 10:24	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			05/29/24 10:13	1

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: TM-2
Lab Sample ID: 310-282095-8
Date Collected: 05/22/24 17:19
Matrix: Water
Date Received: 05/24/24 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.3**		5.00	2.25	mg/L			06/04/24 13:35	5
Sulfate	**353**		5.00	2.10	mg/L			06/04/24 13:35	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100	0.0360	mg/L		05/30/24 09:00	05/31/24 18:06	1
Manganese	<0.0100		0.0100	0.00360	mg/L		05/30/24 09:00	05/31/24 18:06	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		05/30/24 09:00	05/31/24 18:06	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/30/24 09:00	05/31/24 18:06	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/30/24 09:00	06/03/24 23:20	1
Sodium	**80.7**		1.00	0.480	mg/L		05/30/24 09:00	05/31/24 18:06	1
Lithium	**0.0372**		0.0100	0.00250	mg/L		05/30/24 09:00	05/31/24 18:06	1
Strontium	**0.427**		0.00100	0.000530	mg/L		05/30/24 09:00	06/05/24 22:39	1
Selenium	**0.0129**		0.00500	0.00140	mg/L		05/30/24 09:00	05/31/24 18:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500	0.210	mg/L		06/04/24 11:39	06/04/24 18:06	1
Chemical Oxygen Demand (SM 5220D LL)	<5.00		5.00	4.80	mg/L			05/30/24 10:24	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			05/28/24 13:38	1

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-D
Lab Sample ID: 310-282095-9
Date Collected: 05/23/24 10:50
Matrix: Water
Date Received: 05/24/24 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.06**		5.00	2.25	mg/L			06/04/24 14:13	5
Sulfate	**282**		5.00	2.10	mg/L			06/04/24 14:13	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100	0.0360	mg/L		05/30/24 09:00	05/31/24 18:08	1
Manganese	**0.318**		0.0100	0.00360	mg/L		05/30/24 09:00	05/31/24 18:08	1
Molybdenum	**0.00166**	**J**	0.00200	0.00130	mg/L		05/30/24 09:00	05/31/24 18:08	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/30/24 09:00	05/31/24 18:08	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/30/24 09:00	06/03/24 23:23	1
Sodium	**61.8**		1.00	0.480	mg/L		05/30/24 09:00	05/31/24 18:08	1
Lithium	**0.0643**		0.0100	0.00250	mg/L		05/30/24 09:00	05/31/24 18:08	1
Strontium	**0.603**		0.00100	0.000530	mg/L		05/30/24 09:00	06/05/24 22:42	1
Selenium	**0.0220**		0.00500	0.00140	mg/L		05/30/24 09:00	05/31/24 18:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500	0.210	mg/L		06/04/24 11:39	06/04/24 18:07	1
Chemical Oxygen Demand (SM 5220D LL)	<5.00		5.00	4.80	mg/L			05/30/24 10:24	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			05/29/24 10:13	1

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: Leachate Sump
Lab Sample ID: 310-282095-10

Date Collected: 05/23/24 11:30
Matrix: Water
Date Received: 05/24/24 16:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	52.3		10.0	4.50	mg/L			06/05/24 10:01	10
Sulfate	2350		100	42.0	mg/L			06/04/24 14:25	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	13.8		0.100	0.0360	mg/L		05/30/24 09:00	05/31/24 18:10	1
Manganese	1.84		0.0100	0.00360	mg/L		05/30/24 09:00	05/31/24 18:10	1
Molybdenum	7.08		0.0140	0.00910	mg/L		05/30/24 09:00	06/03/24 23:41	7
Arsenic	0.0445		0.00200	0.000530	mg/L		05/30/24 09:00	05/31/24 18:10	1
Cadmium	0.00182		0.00140	0.000700	mg/L		05/30/24 09:00	06/03/24 23:41	7
Sodium	467		7.00	3.36	mg/L		05/30/24 09:00	06/03/24 23:41	7
Lithium	0.0151		0.0100	0.00250	mg/L		05/30/24 09:00	05/31/24 18:10	1
Strontium	0.898		0.00700	0.00371	mg/L		05/30/24 09:00	06/05/24 22:46	7
Selenium	0.738		0.00500	0.00140	mg/L		05/30/24 09:00	05/31/24 18:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500	0.210	mg/L		06/04/24 09:44	06/04/24 16:04	1
Chemical Oxygen Demand (SM 5220D LL)	32.7		5.00	4.80	mg/L			05/30/24 10:24	1
Total Suspended Solids (USGS I-3765-85)	494		15.0	11.1	mg/L			05/29/24 10:13	1

Qualifiers

HPLC/IC

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

Metals

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

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-423653/3
Matrix: Water
Analysis Batch: 423653

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00	0.450	mg/L			06/04/24 09:48	1
Sulfate	<1.00		1.00	0.420	mg/L			06/04/24 09:48	1

Lab Sample ID: LCS 310-423653/4
Matrix: Water
Analysis Batch: 423653

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.653		mg/L		97	90 - 110
Sulfate	10.0	10.15		mg/L		102	90 - 110

Lab Sample ID: 310-282095-1 MS
Matrix: Water
Analysis Batch: 423653

Client Sample ID: MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2.30	J	25.0	24.99		mg/L		91	80 - 120
Sulfate	82.4		25.0	104.8		mg/L		89	80 - 120

Lab Sample ID: 310-282095-1 MSD
Matrix: Water
Analysis Batch: 423653

Client Sample ID: MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2.30	J	25.0	25.07		mg/L		91	80 - 120	0	15
Sulfate	82.4		25.0	104.3		mg/L		88	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-422997/1-A
Matrix: Water
Analysis Batch: 423331

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 422997

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100	0.0360	mg/L		05/30/24 09:00	05/31/24 17:28	1
Manganese	<0.0100		0.0100	0.00360	mg/L		05/30/24 09:00	05/31/24 17:28	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		05/30/24 09:00	05/31/24 17:28	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/30/24 09:00	05/31/24 17:28	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		05/30/24 09:00	05/31/24 17:28	1
Sodium	<1.00		1.00	0.480	mg/L		05/30/24 09:00	05/31/24 17:28	1
Lithium	<0.0100		0.0100	0.00250	mg/L		05/30/24 09:00	05/31/24 17:28	1
Selenium	<0.00500		0.00500	0.00140	mg/L		05/30/24 09:00	05/31/24 17:28	1

Lab Sample ID: MB 310-422997/1-A
Matrix: Water
Analysis Batch: 423437

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 422997

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Strontium	<0.00100		0.00100	0.000530	mg/L		05/30/24 09:00	06/03/24 22:26	1

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

Lab Sample ID: LCS 310-422997/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 423331
Prep Batch: 422997

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			0.200	0.1882		mg/L		94	80 - 120		
Manganese			0.100	0.09716		mg/L		97	80 - 120		
Molybdenum			0.200	0.2171		mg/L		109	80 - 120		
Arsenic			0.200	0.2142		mg/L		107	80 - 120		
Cadmium			0.100	0.1084		mg/L		108	80 - 120		
Sodium			2.00	2.235		mg/L		112	80 - 120		
Lithium			0.200	0.1965		mg/L		98	80 - 120		
Selenium			0.400	0.3954		mg/L		99	80 - 120		

Lab Sample ID: LCS 310-422997/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 423437
Prep Batch: 422997

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Strontium			0.200	0.1824		mg/L		91	80 - 120		

Lab Sample ID: 310-282095-1 MS
Client Sample ID: MW-7
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 423331
Prep Batch: 422997

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron	6.23		0.200	6.423	4	mg/L		97	75 - 125		
Manganese	2.33		0.100	2.434	4	mg/L		107	75 - 125		
Molybdenum	<0.00200		0.200	0.2196		mg/L		110	75 - 125		
Arsenic	0.00283		0.200	0.2234		mg/L		110	75 - 125		
Cadmium	<0.000200		0.100	0.1082		mg/L		108	75 - 125		
Sodium	63.7		2.00	66.66	4	mg/L		149	75 - 125		
Lithium	0.0236		0.200	0.2362		mg/L		106	75 - 125		
Selenium	<0.00500		0.400	0.3953		mg/L		99	75 - 125		

Lab Sample ID: 310-282095-1 MS
Client Sample ID: MW-7
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 423728
Prep Batch: 422997

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Strontium	0.571		0.200	0.7868		mg/L		108	75 - 125		

Lab Sample ID: 310-282095-1 MSD
Client Sample ID: MW-7
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 423331
Prep Batch: 422997

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	6.23		0.200	6.368	4	mg/L		70	75 - 125	1	20
Manganese	2.33		0.100	2.361	4	mg/L		34	75 - 125	3	20
Molybdenum	<0.00200		0.200	0.2204		mg/L		110	75 - 125	0	20
Arsenic	0.00283		0.200	0.2216		mg/L		109	75 - 125	1	20
Cadmium	<0.000200		0.100	0.1080		mg/L		108	75 - 125	0	20
Sodium	63.7		2.00	63.97	4	mg/L		14	75 - 125	4	20
Lithium	0.0236		0.200	0.2293		mg/L		103	75 - 125	3	20

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

Lab Sample ID: 310-282095-1 MSD — **Client Sample ID: MW-7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 423331 — **Prep Batch: 422997**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Selenium	<0.00500		0.400	0.3977		mg/L		99	75 - 125	1	20

Lab Sample ID: 310-282095-1 MSD — **Client Sample ID: MW-7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 423728 — **Prep Batch: 422997**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Strontium	0.571		0.200	0.7705		mg/L		100	75 - 125	2	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-423459/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 423511 — **Prep Batch: 423459**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500	0.210	mg/L		06/04/24 09:44	06/04/24 14:58	1

Lab Sample ID: LCS 310-423459/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 423511 — **Prep Batch: 423459**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	4.00	4.041		mg/L		101	90 - 110

Lab Sample ID: MB 310-423491/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 423511 — **Prep Batch: 423491**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500	0.210	mg/L		06/04/24 11:39	06/04/24 16:31	1

Lab Sample ID: LCS 310-423491/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 423511 — **Prep Batch: 423491**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	4.00	4.011		mg/L		100	90 - 110

Method: 5220D LL - COD

Lab Sample ID: MB 310-423106/60 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 423106

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00	4.80	mg/L			05/30/24 10:23	1

Method: 5220D LL - COD (Continued)

Lab Sample ID: MB 310-423106/90
Matrix: Water
Analysis Batch: 423106

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00	4.80	mg/L			05/30/24 10:23	1

Lab Sample ID: LCS 310-423106/63
Matrix: Water
Analysis Batch: 423106

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	118.8		mg/L		95	85 - 110

Lab Sample ID: LCS 310-423106/91
Matrix: Water
Analysis Batch: 423106

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	119.5		mg/L		95	85 - 110

Lab Sample ID: 310-282095-2 MS
Matrix: Water
Analysis Batch: 423106

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	71.9		50.0	123.2		mg/L		103	83 - 146

Lab Sample ID: 310-282095-2 MSD
Matrix: Water
Analysis Batch: 423106

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand	71.9		50.0	126.9		mg/L		110	83 - 146	3	18

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

Lab Sample ID: MB 310-422877/1
Matrix: Water
Analysis Batch: 422877

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			05/28/24 13:38	1

Lab Sample ID: LCS 310-422877/2
Matrix: Water
Analysis Batch: 422877

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

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

Lab Sample ID: MB 310-422966/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 422966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			05/29/24 10:13	1

Lab Sample ID: LCS 310-422966/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 422966

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			100	96.00		mg/L		96	81 - 116		

HPLC/IC

Analysis Batch: 423653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282095-1	MW-7	Total/NA	Water	9056A	
310-282095-2	MW-11	Total/NA	Water	9056A	
310-282095-3	MW-15	Total/NA	Water	9056A	
310-282095-4	MW-16	Total/NA	Water	9056A	
310-282095-5	MW-17	Total/NA	Water	9056A	
310-282095-6	MW-18R	Total/NA	Water	9056A	
310-282095-7	MW-21	Total/NA	Water	9056A	
310-282095-7	MW-21	Total/NA	Water	9056A	
310-282095-8	TM-2	Total/NA	Water	9056A	
310-282095-9	MW-D	Total/NA	Water	9056A	
310-282095-10	Leachate Sump	Total/NA	Water	9056A	
310-282095-10	Leachate Sump	Total/NA	Water	9056A	
MB 310-423653/3	Method Blank	Total/NA	Water	9056A	
LCS 310-423653/4	Lab Control Sample	Total/NA	Water	9056A	
310-282095-1 MS	MW-7	Total/NA	Water	9056A	
310-282095-1 MSD	MW-7	Total/NA	Water	9056A	

Metals

Prep Batch: 422997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282095-1	MW-7	Total/NA	Water	3005A	
310-282095-2	MW-11	Total/NA	Water	3005A	
310-282095-3	MW-15	Total/NA	Water	3005A	
310-282095-4	MW-16	Total/NA	Water	3005A	
310-282095-5	MW-17	Total/NA	Water	3005A	
310-282095-6	MW-18R	Total/NA	Water	3005A	
310-282095-7	MW-21	Total/NA	Water	3005A	
310-282095-8	TM-2	Total/NA	Water	3005A	
310-282095-9	MW-D	Total/NA	Water	3005A	
310-282095-10	Leachate Sump	Total/NA	Water	3005A	
MB 310-422997/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-422997/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-282095-1 MS	MW-7	Total/NA	Water	3005A	
310-282095-1 MSD	MW-7	Total/NA	Water	3005A	

Analysis Batch: 423331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282095-1	MW-7	Total/NA	Water	6020B	422997
310-282095-2	MW-11	Total/NA	Water	6020B	422997
310-282095-3	MW-15	Total/NA	Water	6020B	422997
310-282095-4	MW-16	Total/NA	Water	6020B	422997
310-282095-5	MW-17	Total/NA	Water	6020B	422997
310-282095-6	MW-18R	Total/NA	Water	6020B	422997
310-282095-7	MW-21	Total/NA	Water	6020B	422997
310-282095-8	TM-2	Total/NA	Water	6020B	422997
310-282095-9	MW-D	Total/NA	Water	6020B	422997
310-282095-10	Leachate Sump	Total/NA	Water	6020B	422997
MB 310-422997/1-A	Method Blank	Total/NA	Water	6020B	422997
LCS 310-422997/2-A	Lab Control Sample	Total/NA	Water	6020B	422997
310-282095-1 MS	MW-7	Total/NA	Water	6020B	422997

Metals (Continued)

Analysis Batch: 423331 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282095-1 MSD	MW-7	Total/NA	Water	6020B	422997

Analysis Batch: 423437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282095-1	MW-7	Total/NA	Water	6020B	422997
310-282095-5	MW-17	Total/NA	Water	6020B	422997
310-282095-6	MW-18R	Total/NA	Water	6020B	422997
310-282095-7	MW-21	Total/NA	Water	6020B	422997
310-282095-8	TM-2	Total/NA	Water	6020B	422997
310-282095-9	MW-D	Total/NA	Water	6020B	422997
310-282095-10	Leachate Sump	Total/NA	Water	6020B	422997
MB 310-422997/1-A	Method Blank	Total/NA	Water	6020B	422997
LCS 310-422997/2-A	Lab Control Sample	Total/NA	Water	6020B	422997

Analysis Batch: 423728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282095-2	MW-11	Total/NA	Water	6020B	422997
310-282095-3	MW-15	Total/NA	Water	6020B	422997
310-282095-4	MW-16	Total/NA	Water	6020B	422997
310-282095-5	MW-17	Total/NA	Water	6020B	422997
310-282095-6	MW-18R	Total/NA	Water	6020B	422997
310-282095-7	MW-21	Total/NA	Water	6020B	422997
310-282095-8	TM-2	Total/NA	Water	6020B	422997
310-282095-9	MW-D	Total/NA	Water	6020B	422997
310-282095-10	Leachate Sump	Total/NA	Water	6020B	422997
310-282095-1 MS	MW-7	Total/NA	Water	6020B	422997
310-282095-1 MSD	MW-7	Total/NA	Water	6020B	422997

General Chemistry

Analysis Batch: 422877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282095-1	MW-7	Total/NA	Water	I-3765-85	
310-282095-3	MW-15	Total/NA	Water	I-3765-85	
310-282095-4	MW-16	Total/NA	Water	I-3765-85	
310-282095-8	TM-2	Total/NA	Water	I-3765-85	
MB 310-422877/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-422877/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 422966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282095-2	MW-11	Total/NA	Water	I-3765-85	
310-282095-5	MW-17	Total/NA	Water	I-3765-85	
310-282095-6	MW-18R	Total/NA	Water	I-3765-85	
310-282095-7	MW-21	Total/NA	Water	I-3765-85	
310-282095-9	MW-D	Total/NA	Water	I-3765-85	
310-282095-10	Leachate Sump	Total/NA	Water	I-3765-85	
MB 310-422966/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-422966/2	Lab Control Sample	Total/NA	Water	I-3765-85	

General Chemistry

Analysis Batch: 423106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282095-1	MW-7	Total/NA	Water	5220D LL	
310-282095-2	MW-11	Total/NA	Water	5220D LL	
310-282095-3	MW-15	Total/NA	Water	5220D LL	
310-282095-4	MW-16	Total/NA	Water	5220D LL	
310-282095-5	MW-17	Total/NA	Water	5220D LL	
310-282095-6	MW-18R	Total/NA	Water	5220D LL	
310-282095-7	MW-21	Total/NA	Water	5220D LL	
310-282095-8	TM-2	Total/NA	Water	5220D LL	
310-282095-9	MW-D	Total/NA	Water	5220D LL	
310-282095-10	Leachate Sump	Total/NA	Water	5220D LL	
MB 310-423106/60	Method Blank	Total/NA	Water	5220D LL	
MB 310-423106/90	Method Blank	Total/NA	Water	5220D LL	
LCS 310-423106/63	Lab Control Sample	Total/NA	Water	5220D LL	
LCS 310-423106/91	Lab Control Sample	Total/NA	Water	5220D LL	
310-282095-2 MS	MW-11	Total/NA	Water	5220D LL	
310-282095-2 MSD	MW-11	Total/NA	Water	5220D LL	

Prep Batch: 423459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282095-4	MW-16	Total/NA	Water	Distill/Ammonia	
310-282095-7	MW-21	Total/NA	Water	Distill/Ammonia	
310-282095-10	Leachate Sump	Total/NA	Water	Distill/Ammonia	
MB 310-423459/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 310-423459/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Prep Batch: 423491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282095-1	MW-7	Total/NA	Water	Distill/Ammonia	
310-282095-2	MW-11	Total/NA	Water	Distill/Ammonia	
310-282095-3	MW-15	Total/NA	Water	Distill/Ammonia	
310-282095-5	MW-17	Total/NA	Water	Distill/Ammonia	
310-282095-6	MW-18R	Total/NA	Water	Distill/Ammonia	
310-282095-8	TM-2	Total/NA	Water	Distill/Ammonia	
310-282095-9	MW-D	Total/NA	Water	Distill/Ammonia	
MB 310-423491/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 310-423491/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 423511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282095-1	MW-7	Total/NA	Water	350.1	423491
310-282095-2	MW-11	Total/NA	Water	350.1	423491
310-282095-3	MW-15	Total/NA	Water	350.1	423491
310-282095-4	MW-16	Total/NA	Water	350.1	423459
310-282095-5	MW-17	Total/NA	Water	350.1	423491
310-282095-6	MW-18R	Total/NA	Water	350.1	423491
310-282095-7	MW-21	Total/NA	Water	350.1	423459
310-282095-8	TM-2	Total/NA	Water	350.1	423491
310-282095-9	MW-D	Total/NA	Water	350.1	423491
310-282095-10	Leachate Sump	Total/NA	Water	350.1	423459
MB 310-423459/1-A	Method Blank	Total/NA	Water	350.1	423459
MB 310-423491/1-A	Method Blank	Total/NA	Water	350.1	423491

General Chemistry (Continued)

Analysis Batch: 423511 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-423459/2-A	Lab Control Sample	Total/NA	Water	350.1	423459
LCS 310-423491/2-A	Lab Control Sample	Total/NA	Water	350.1	423491

Lab Chronicle

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-7
Lab Sample ID: 310-282095-1
Date Collected: 05/22/24 16:35
Matrix: Water
Date Received: 05/24/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	423653	QTZ5	EET CF	06/04/24 11:41
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423437	NFT2	EET CF	06/03/24 22:33
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423331	NFT2	EET CF	05/31/24 17:33
Total/NA	Prep	Distill/Ammonia			423491	MQ8M	EET CF	06/04/24 11:39
Total/NA	Analysis	350.1		1	423511	ENB7	EET CF	06/04/24 18:07
Total/NA	Analysis	5220D LL		1	423106	ENB7	EET CF	05/30/24 10:23
Total/NA	Analysis	I-3765-85		1	422877	HE7K	EET CF	05/28/24 13:38

Client Sample ID: MW-11
Lab Sample ID: 310-282095-2
Date Collected: 05/23/24 09:28
Matrix: Water
Date Received: 05/24/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	423653	QTZ5	EET CF	06/04/24 12:19
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423728	NFT2	EET CF	06/05/24 22:02
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423331	NFT2	EET CF	05/31/24 17:44
Total/NA	Prep	Distill/Ammonia			423491	MQ8M	EET CF	06/04/24 11:39
Total/NA	Analysis	350.1		1	423511	ENB7	EET CF	06/04/24 18:09
Total/NA	Analysis	5220D LL		1	423106	ENB7	EET CF	05/30/24 10:23
Total/NA	Analysis	I-3765-85		1	422966	HE7K	EET CF	05/29/24 10:13

Client Sample ID: MW-15
Lab Sample ID: 310-282095-3
Date Collected: 05/22/24 15:56
Matrix: Water
Date Received: 05/24/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	423653	QTZ5	EET CF	06/04/24 12:32
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423728	NFT2	EET CF	06/05/24 22:06
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423331	NFT2	EET CF	05/31/24 17:46
Total/NA	Prep	Distill/Ammonia			423491	MQ8M	EET CF	06/04/24 11:39
Total/NA	Analysis	350.1		1	423511	ENB7	EET CF	06/04/24 17:14
Total/NA	Analysis	5220D LL		1	423106	ENB7	EET CF	05/30/24 10:23
Total/NA	Analysis	I-3765-85		1	422877	HE7K	EET CF	05/28/24 13:38

Lab Chronicle

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-16
Lab Sample ID: 310-282095-4
Date Collected: 05/22/24 15:19
Matrix: Water
Date Received: 05/24/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	423653	QTZ5	EET CF	06/04/24 12:44
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423728	NFT2	EET CF	06/05/24 22:09
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423331	NFT2	EET CF	05/31/24 17:48
Total/NA	Prep	Distill/Ammonia			423459	MQ8M	EET CF	06/04/24 09:44
Total/NA	Analysis	350.1		1	423511	ENB7	EET CF	06/04/24 16:05
Total/NA	Analysis	5220D LL		1	423106	ENB7	EET CF	05/30/24 10:23
Total/NA	Analysis	I-3765-85		1	422877	HE7K	EET CF	05/28/24 13:38

Client Sample ID: MW-17
Lab Sample ID: 310-282095-5
Date Collected: 05/23/24 10:50
Matrix: Water
Date Received: 05/24/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	423653	QTZ5	EET CF	06/04/24 12:57
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423437	NFT2	EET CF	06/03/24 23:09
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423728	NFT2	EET CF	06/05/24 22:13
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423331	NFT2	EET CF	05/31/24 17:59
Total/NA	Prep	Distill/Ammonia			423491	MQ8M	EET CF	06/04/24 11:39
Total/NA	Analysis	350.1		1	423511	ENB7	EET CF	06/04/24 18:10
Total/NA	Analysis	5220D LL		1	423106	ENB7	EET CF	05/30/24 10:23
Total/NA	Analysis	I-3765-85		1	422966	HE7K	EET CF	05/29/24 10:13

Client Sample ID: MW-18R
Lab Sample ID: 310-282095-6
Date Collected: 05/23/24 10:08
Matrix: Water
Date Received: 05/24/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	423653	QTZ5	EET CF	06/04/24 13:09
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423437	NFT2	EET CF	06/03/24 23:12
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423728	NFT2	EET CF	06/05/24 22:31
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423331	NFT2	EET CF	05/31/24 18:01
Total/NA	Prep	Distill/Ammonia			423491	MQ8M	EET CF	06/04/24 11:39
Total/NA	Analysis	350.1		1	423511	ENB7	EET CF	06/04/24 18:09
Total/NA	Analysis	5220D LL		1	423106	ENB7	EET CF	05/30/24 10:23
Total/NA	Analysis	I-3765-85		1	422966	HE7K	EET CF	05/29/24 10:13

Lab Chronicle

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-21
Lab Sample ID: 310-282095-7
Date Collected: 05/23/24 08:49
Matrix: Water
Date Received: 05/24/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	423653	QTZ5	EET CF	06/04/24 13:22
Total/NA	Analysis	9056A		20	423653	QTZ5	EET CF	06/05/24 09:48
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423437	NFT2	EET CF	06/03/24 23:16
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423728	NFT2	EET CF	06/05/24 22:35
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423331	NFT2	EET CF	05/31/24 18:04
Total/NA	Prep	Distill/Ammonia			423459	MQ8M	EET CF	06/04/24 09:44
Total/NA	Analysis	350.1		1	423511	ENB7	EET CF	06/04/24 16:02
Total/NA	Analysis	5220D LL		1	423106	ENB7	EET CF	05/30/24 10:24
Total/NA	Analysis	I-3765-85		1	422966	HE7K	EET CF	05/29/24 10:13

Client Sample ID: TM-2
Lab Sample ID: 310-282095-8
Date Collected: 05/22/24 17:19
Matrix: Water
Date Received: 05/24/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	423653	QTZ5	EET CF	06/04/24 13:35
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423437	NFT2	EET CF	06/03/24 23:20
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423728	NFT2	EET CF	06/05/24 22:39
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423331	NFT2	EET CF	05/31/24 18:06
Total/NA	Prep	Distill/Ammonia			423491	MQ8M	EET CF	06/04/24 11:39
Total/NA	Analysis	350.1		1	423511	ENB7	EET CF	06/04/24 18:06
Total/NA	Analysis	5220D LL		1	423106	ENB7	EET CF	05/30/24 10:24
Total/NA	Analysis	I-3765-85		1	422877	HE7K	EET CF	05/28/24 13:38

Client Sample ID: MW-D
Lab Sample ID: 310-282095-9
Date Collected: 05/23/24 10:50
Matrix: Water
Date Received: 05/24/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	423653	QTZ5	EET CF	06/04/24 14:13
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423437	NFT2	EET CF	06/03/24 23:23
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423728	NFT2	EET CF	06/05/24 22:42
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423331	NFT2	EET CF	05/31/24 18:08
Total/NA	Prep	Distill/Ammonia			423491	MQ8M	EET CF	06/04/24 11:39
Total/NA	Analysis	350.1		1	423511	ENB7	EET CF	06/04/24 18:07

Lab Chronicle

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Client Sample ID: MW-D
Lab Sample ID: 310-282095-9
Date Collected: 05/23/24 10:50
Matrix: Water
Date Received: 05/24/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	5220D LL		1	423106	ENB7	EET CF	05/30/24 10:24
Total/NA	Analysis	I-3765-85		1	422966	HE7K	EET CF	05/29/24 10:13

Client Sample ID: Leachate Sump
Lab Sample ID: 310-282095-10
Date Collected: 05/23/24 11:30
Matrix: Water
Date Received: 05/24/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		100	423653	QTZ5	EET CF	06/04/24 14:25
Total/NA	Analysis	9056A		10	423653	QTZ5	EET CF	06/05/24 10:01
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		7	423437	NFT2	EET CF	06/03/24 23:41
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		7	423728	NFT2	EET CF	06/05/24 22:46
Total/NA	Prep	3005A			422997	KM3E	EET CF	05/30/24 09:00
Total/NA	Analysis	6020B		1	423331	NFT2	EET CF	05/31/24 18:10
Total/NA	Prep	Distill/Ammonia			423459	MQ8M	EET CF	06/04/24 09:44
Total/NA	Analysis	350.1		1	423511	ENB7	EET CF	06/04/24 16:04
Total/NA	Analysis	5220D LL		1	423106	ENB7	EET CF	05/30/24 10:24
Total/NA	Analysis	I-3765-85		1	422966	HE7K	EET CF	05/29/24 10:13

Laboratory References:

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

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

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
6020B	3005A	Water	Lithium

Method Summary

Client: SCS Engineers
Job ID: 310-282095-1
Project/Site: Climax Molyb Landfill Sampling Spring 2024

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
5220D LL	COD	SM	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
Distill/Ammonia	Distillation, Ammonia	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

eurofins | Environment Testing America

310-282095 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 5/24/24 | TIME 1630 | Received By: SB

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: Y | 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 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

Chain of Custody Record

eurofins

Regulatory Program ☐ DW ☐ NPDES ☐ RCRA ☑ Other Groundwater

TestAmerica Laboratories Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager	Site Contact:	Date	COC No
Kevin Jensen SCS Engineers	Email	Lab Contact:	Carrier	1 of 1 COCs
1690 All-State Court Suite 100	Cell			Sampler
West Des Moines Iowa 50265	Analysis Turnaround Time			For Lab Use Only
515-631-6154	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client
kjensen@scsengineers.com	Other			Lab Sampling
Project Name Climax Moly Landfill Sampling Spring 2024	☐ 2 week			
Site Climax Moly Landfill	☐ 1 week			Job SDG No
P O #	☐ day			
	☐ day			

Sample Identification	Sample Date	Sample Time	Sample Type (C Comp, G-G ab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Total Arsenic	Total Cadmium	Total Iron	Total Lithium	Total Manganese	Total Molybdenum	Total Selenium	Total Sodium	Total Strontium	Total Sulfate	Total Suspended Solids	Ammonia Nitrogen	Chloride	Chemical Oxygen Demand			Sample Specific Notes
MW 7	5/22/24	1635	G	W	4			X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MW 11	5/23/24	928	G	W	4			X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MW 15	5/22/24	1556	G	W	4			X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MW 16	5/22/24	1519	G	W	4			X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MW 17	5/23/24	1050	G	W	4			X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MW 18R	5/23/24	1008	G	W	4			X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MW 21	5/23/24	849	G	W	4			X	X	X	X	X	X	X	X	X	X	X	X	X	X			
TW 2	5/22/24	1719	G	W	4			X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MW D	5/23/24	1050	G	W	4			X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Leachate Sump	5/23/24	1130	G	W	4			X	X	X	X	X	X	X	X	X	X	X	X	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 Month

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	Company	Date/Time	Received by	Company	Date/Time
Tyler S	SCS	5/24/24 1400			
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time
				EE	5/24/24 1630

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

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-282095-1

Login Number: 282095

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Bennett, Samantha

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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 8/15/2024 10:08:37 AM

JOB DESCRIPTION

Climax Moly Landfill Sampling Fall 2024

JOB NUMBER

310-287374-1

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
8/15/2024 10:08:37 AM

Authorized for release by
Mary Yang, Client Service Manager
Mary.Yang@ET.EurofinsUS.com
(319)595-2025

Table of Contents

Job ID: 310-287374-1 Eurofins Cedar Falls

Job Narrative
310-287374-1

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 8/2/2024 3:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C.

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
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-287374-1	MW-7	Water	07/30/24 15:15	08/02/24 15:30
310-287374-2	MW-11	Water	07/31/24 17:37	08/02/24 15:30
310-287374-3	MW-15	Water	07/30/24 15:48	08/02/24 15:30
310-287374-4	MW-16	Water	07/31/24 16:57	08/02/24 15:30
310-287374-5	MW-17	Water	07/31/24 15:48	08/02/24 15:30
310-287374-6	MW-18R	Water	07/30/24 14:14	08/02/24 15:30
310-287374-7	MW-21	Water	07/31/24 16:21	08/02/24 15:30
310-287374-8	TW-2	Water	07/31/24 15:10	08/02/24 15:30
310-287374-9	MW-D	Water	07/31/24 15:48	08/02/24 15:30
310-287374-10	Leachate Sump	Water	07/31/24 19:36	08/02/24 15:30

Detection Summary

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: MW-7 — Lab Sample ID: 310-287374-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.81	J	5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	82.0		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00136	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Iron	2.44		0.100	0.0360	mg/L	1		6020B	Total/NA
Lithium	0.0211		0.0100	0.00250	mg/L	1		6020B	Total/NA
Manganese	2.18		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	0.00141	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Sodium	58.7		1.00	0.480	mg/L	1		6020B	Total/NA
Strontium	0.544		0.00100	0.000530	mg/L	1		6020B	Total/NA
Ammonia	0.131	J	0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	17.2		5.00	4.80	mg/L	1		5220D LL	Total/NA
Total Suspended Solids	6.00		3.75	2.78	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-11 — Lab Sample ID: 310-287374-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21.4		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	22.2		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0101		0.00200	0.000530	mg/L	1		6020B	Total/NA
Iron	42.4		0.100	0.0360	mg/L	1		6020B	Total/NA
Lithium	0.00477	J	0.0100	0.00250	mg/L	1		6020B	Total/NA
Manganese	4.63		0.0100	0.00360	mg/L	1		6020B	Total/NA
Selenium	0.00210	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Sodium	82.7		1.00	0.480	mg/L	1		6020B	Total/NA
Strontium	0.578		0.00100	0.000530	mg/L	1		6020B	Total/NA
Ammonia	6.39		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	141		5.00	4.80	mg/L	1		5220D LL	Total/NA
Total Suspended Solids	76.3		5.00	3.70	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-15 — Lab Sample ID: 310-287374-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.54		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	126		5.00	2.10	mg/L	5		9056A	Total/NA
Lithium	0.0325		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00174	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Selenium	0.00344	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Sodium	52.0		1.00	0.480	mg/L	1		6020B	Total/NA
Strontium	0.437		0.00100	0.000530	mg/L	1		6020B	Total/NA
Chemical Oxygen Demand	9.77		5.00	4.80	mg/L	1		5220D LL	Total/NA

Client Sample ID: MW-16 — Lab Sample ID: 310-287374-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.75		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	449		5.00	2.10	mg/L	5		9056A	Total/NA
Lithium	0.0372		0.0100	0.00250	mg/L	1		6020B	Total/NA
Manganese	0.0389		0.0100	0.00360	mg/L	1		6020B	Total/NA
Sodium	70.0		1.00	0.480	mg/L	1		6020B	Total/NA
Strontium	0.610		0.00100	0.000530	mg/L	1		6020B	Total/NA
Chemical Oxygen Demand	8.08		5.00	4.80	mg/L	1		5220D LL	Total/NA
Total Suspended Solids	5.25		1.88	1.39	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: MW-17
Lab Sample ID: 310-287374-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.61		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	354		5.00	2.10	mg/L	5		9056A	Total/NA
Iron	0.0616	J	0.100	0.0360	mg/L	1		6020B	Total/NA
Lithium	0.0734		0.0100	0.00250	mg/L	1		6020B	Total/NA
Manganese	1.26		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	0.00239		0.00200	0.00130	mg/L	1		6020B	Total/NA
Selenium	0.00246	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Sodium	60.2		1.00	0.480	mg/L	1		6020B	Total/NA
Strontium	0.660		0.00100	0.000530	mg/L	1		6020B	Total/NA
Chemical Oxygen Demand	5.03		5.00	4.80	mg/L	1		5220D LL	Total/NA

Client Sample ID: MW-18R
Lab Sample ID: 310-287374-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.07		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	50.6		5.00	2.10	mg/L	5		9056A	Total/NA
Lithium	0.0312		0.0100	0.00250	mg/L	1		6020B	Total/NA
Selenium	0.0522		0.00500	0.00140	mg/L	1		6020B	Total/NA
Sodium	48.6		1.00	0.480	mg/L	1		6020B	Total/NA
Strontium	0.298		0.00100	0.000530	mg/L	1		6020B	Total/NA
Total Suspended Solids	1.63	J	1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-21
Lab Sample ID: 310-287374-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	79.9		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	553		50.0	21.0	mg/L	50		9056A	Total/NA
Lithium	0.0245		0.0100	0.00250	mg/L	1		6020B	Total/NA
Manganese	0.275		0.0100	0.00360	mg/L	1		6020B	Total/NA
Selenium	0.00649		0.00500	0.00140	mg/L	1		6020B	Total/NA
Sodium	90.8		1.00	0.480	mg/L	1		6020B	Total/NA
Strontium	0.724		0.00100	0.000530	mg/L	1		6020B	Total/NA
Chemical Oxygen Demand	11.1		5.00	4.80	mg/L	1		5220D LL	Total/NA
Total Suspended Solids	1.50	J	1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: TW-2
Lab Sample ID: 310-287374-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13.6		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	379		5.00	2.10	mg/L	5		9056A	Total/NA
Lithium	0.0442		0.0100	0.00250	mg/L	1		6020B	Total/NA
Selenium	0.0147		0.00500	0.00140	mg/L	1		6020B	Total/NA
Sodium	81.7		1.00	0.480	mg/L	1		6020B	Total/NA
Strontium	0.460		0.00100	0.000530	mg/L	1		6020B	Total/NA
Chemical Oxygen Demand	5.37		5.00	4.80	mg/L	1		5220D LL	Total/NA
Total Suspended Solids	1.75	J	1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-D
Lab Sample ID: 310-287374-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.11		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	125		5.00	2.10	mg/L	5		9056A	Total/NA
Lithium	0.0329		0.0100	0.00250	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-D (Continued)
Lab Sample ID: 310-287374-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	0.00173	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Selenium	0.00318	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Sodium	50.0		1.00	0.480	mg/L	1		6020B	Total/NA
Strontium	0.415		0.00100	0.000530	mg/L	1		6020B	Total/NA
Chemical Oxygen Demand	7.40		5.00	4.80	mg/L	1		5220D LL	Total/NA

Client Sample ID: Leachate Sump
Lab Sample ID: 310-287374-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	55.4		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	1880		50.0	21.0	mg/L	50		9056A	Total/NA
Arsenic	0.0126		0.00200	0.000530	mg/L	1		6020B	Total/NA
Cadmium	0.00215		0.000200	0.000100	mg/L	1		6020B	Total/NA
Iron	3.67		0.100	0.0360	mg/L	1		6020B	Total/NA
Lithium	0.00787	J	0.0100	0.00250	mg/L	1		6020B	Total/NA
Manganese	0.697		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	6.08		0.00800	0.00520	mg/L	4		6020B	Total/NA
Selenium	0.583		0.00500	0.00140	mg/L	1		6020B	Total/NA
Sodium	640		4.00	1.92	mg/L	4		6020B	Total/NA
Strontium	0.692		0.00400	0.00212	mg/L	4		6020B	Total/NA
Ammonia as N	0.231	J	0.500	0.210	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	79.6		5.00	4.80	mg/L	1		5220D LL	Total/NA
Total Suspended Solids	1500		15.0	11.1	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: MW-7
Lab Sample ID: 310-287374-1
Date Collected: 07/30/24 15:15
Matrix: Water
Date Received: 08/02/24 15:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.81	J	5.00	2.25	mg/L			08/13/24 16:33	5
Sulfate	82.0		5.00	2.10	mg/L			08/13/24 16:33	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00136	J	0.00200	0.000530	mg/L		08/06/24 09:30	08/07/24 13:54	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/06/24 09:30	08/07/24 13:54	1
Iron	2.44		0.100	0.0360	mg/L		08/06/24 09:30	08/07/24 13:54	1
Lithium	0.0211		0.0100	0.00250	mg/L		08/06/24 09:30	08/07/24 13:54	1
Manganese	2.18		0.0100	0.00360	mg/L		08/06/24 09:30	08/07/24 13:54	1
Molybdenum	0.00141	J	0.00200	0.00130	mg/L		08/06/24 09:30	08/07/24 13:54	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/06/24 09:30	08/07/24 13:54	1
Sodium	58.7		1.00	0.480	mg/L		08/06/24 09:30	08/07/24 13:54	1
Strontium	0.544		0.00100	0.000530	mg/L		08/06/24 09:30	08/07/24 13:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.131	J	0.200	0.100	mg/L			08/05/24 22:25	1
Chemical Oxygen Demand (SM 5220D LL)	17.2		5.00	4.80	mg/L			08/13/24 08:45	1
Total Suspended Solids (USGS I-3765-85)	6.00		3.75	2.78	mg/L			08/05/24 14:05	1

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: MW-11
Lab Sample ID: 310-287374-2
Date Collected: 07/31/24 17:37
Matrix: Water
Date Received: 08/02/24 15:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.4		5.00	2.25	mg/L			08/13/24 17:09	5
Sulfate	22.2		5.00	2.10	mg/L			08/13/24 17:09	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0101		0.00200	0.000530	mg/L		08/06/24 09:30	08/07/24 13:56	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/06/24 09:30	08/07/24 13:56	1
Iron	42.4		0.100	0.0360	mg/L		08/06/24 09:30	08/07/24 13:56	1
Lithium	0.00477	J	0.0100	0.00250	mg/L		08/06/24 09:30	08/07/24 13:56	1
Manganese	4.63		0.0100	0.00360	mg/L		08/06/24 09:30	08/07/24 13:56	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		08/06/24 09:30	08/07/24 13:56	1
Selenium	0.00210	J	0.00500	0.00140	mg/L		08/06/24 09:30	08/07/24 13:56	1
Sodium	82.7		1.00	0.480	mg/L		08/06/24 09:30	08/07/24 13:56	1
Strontium	0.578		0.00100	0.000530	mg/L		08/06/24 09:30	08/07/24 13:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	6.39		0.200	0.100	mg/L			08/05/24 22:27	1
Chemical Oxygen Demand (SM 5220D LL)	141		5.00	4.80	mg/L			08/13/24 08:45	1
Total Suspended Solids (USGS I-3765-85)	76.3		5.00	3.70	mg/L			08/05/24 15:36	1

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: MW-15
Lab Sample ID: 310-287374-3
Date Collected: 07/30/24 15:48
Matrix: Water
Date Received: 08/02/24 15:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.54**		5.00	2.25	mg/L			08/13/24 18:09	5
Sulfate	**126**		5.00	2.10	mg/L			08/13/24 18:09	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/06/24 09:30	08/07/24 14:00	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/06/24 09:30	08/07/24 14:00	1
Iron	<0.100		0.100	0.0360	mg/L		08/06/24 09:30	08/07/24 14:00	1
Lithium	**0.0325**		0.0100	0.00250	mg/L		08/06/24 09:30	08/07/24 14:00	1
Manganese	<0.0100		0.0100	0.00360	mg/L		08/06/24 09:30	08/07/24 14:00	1
Molybdenum	**0.00174**	**J**	0.00200	0.00130	mg/L		08/06/24 09:30	08/07/24 14:00	1
Selenium	**0.00344**	**J**	0.00500	0.00140	mg/L		08/06/24 09:30	08/07/24 14:00	1
Sodium	**52.0**		1.00	0.480	mg/L		08/06/24 09:30	08/07/24 14:00	1
Strontium	**0.437**		0.00100	0.000530	mg/L		08/06/24 09:30	08/07/24 14:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.100	mg/L			08/05/24 22:28	1
Chemical Oxygen Demand (SM 5220D LL)	**9.77**		5.00	4.80	mg/L			08/13/24 08:45	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			08/05/24 14:05	1

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: MW-16
Lab Sample ID: 310-287374-4
Date Collected: 07/31/24 16:57
Matrix: Water
Date Received: 08/02/24 15:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.75**		5.00	2.25	mg/L			08/13/24 18:22	5
Sulfate	**449**		5.00	2.10	mg/L			08/13/24 18:22	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/06/24 09:30	08/07/24 14:03	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/06/24 09:30	08/07/24 14:03	1
Iron	<0.100		0.100	0.0360	mg/L		08/06/24 09:30	08/07/24 14:03	1
Lithium	**0.0372**		0.0100	0.00250	mg/L		08/06/24 09:30	08/07/24 14:03	1
Manganese	**0.0389**		0.0100	0.00360	mg/L		08/06/24 09:30	08/07/24 14:03	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		08/06/24 09:30	08/07/24 14:03	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/06/24 09:30	08/07/24 14:03	1
Sodium	**70.0**		1.00	0.480	mg/L		08/06/24 09:30	08/07/24 14:03	1
Strontium	**0.610**		0.00100	0.000530	mg/L		08/06/24 09:30	08/07/24 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.100	mg/L			08/05/24 22:28	1
Chemical Oxygen Demand (SM 5220D LL)	**8.08**		5.00	4.80	mg/L			08/13/24 08:45	1
Total Suspended Solids (USGS I-3765-85)	**5.25**		1.88	1.39	mg/L			08/05/24 15:36	1

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: MW-17
Lab Sample ID: 310-287374-5
Date Collected: 07/31/24 15:48
Matrix: Water
Date Received: 08/02/24 15:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.61**		5.00	2.25	mg/L			08/13/24 18:34	5
Sulfate	**354**		5.00	2.10	mg/L			08/13/24 18:34	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/06/24 09:30	08/07/24 14:14	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/06/24 09:30	08/07/24 14:14	1
Iron	**0.0616**	**J**	0.100	0.0360	mg/L		08/06/24 09:30	08/07/24 14:14	1
Lithium	**0.0734**		0.0100	0.00250	mg/L		08/06/24 09:30	08/07/24 14:14	1
Manganese	**1.26**		0.0100	0.00360	mg/L		08/06/24 09:30	08/07/24 14:14	1
Molybdenum	**0.00239**		0.00200	0.00130	mg/L		08/06/24 09:30	08/07/24 14:14	1
Selenium	**0.00246**	**J**	0.00500	0.00140	mg/L		08/06/24 09:30	08/07/24 14:14	1
Sodium	**60.2**		1.00	0.480	mg/L		08/06/24 09:30	08/07/24 14:14	1
Strontium	**0.660**		0.00100	0.000530	mg/L		08/06/24 09:30	08/08/24 17:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.100	mg/L			08/05/24 22:30	1
Chemical Oxygen Demand (SM 5220D LL)	**5.03**		5.00	4.80	mg/L			08/13/24 08:45	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			08/06/24 10:24	1

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: MW-18R
Lab Sample ID: 310-287374-6
Date Collected: 07/30/24 14:14
Matrix: Water
Date Received: 08/02/24 15:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.07**		5.00	2.25	mg/L			08/13/24 18:46	5
Sulfate	**50.6**		5.00	2.10	mg/L			08/13/24 18:46	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/06/24 09:30	08/07/24 14:16	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/06/24 09:30	08/07/24 14:16	1
Iron	<0.100		0.100	0.0360	mg/L		08/06/24 09:30	08/07/24 14:16	1
Lithium	**0.0312**		0.0100	0.00250	mg/L		08/06/24 09:30	08/07/24 14:16	1
Manganese	<0.0100		0.0100	0.00360	mg/L		08/06/24 09:30	08/07/24 14:16	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		08/06/24 09:30	08/07/24 14:16	1
Selenium	**0.0522**		0.00500	0.00140	mg/L		08/06/24 09:30	08/07/24 14:16	1
Sodium	**48.6**		1.00	0.480	mg/L		08/06/24 09:30	08/07/24 14:16	1
Strontium	**0.298**		0.00100	0.000530	mg/L		08/06/24 09:30	08/08/24 17:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.100	mg/L			08/05/24 22:30	1
Chemical Oxygen Demand (SM 5220D LL)	<5.00		5.00	4.80	mg/L			08/13/24 08:45	1
Total Suspended Solids (USGS I-3765-85)	**1.63**	**J**	1.88	1.39	mg/L			08/05/24 15:36	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: MW-21
Lab Sample ID: 310-287374-7
Date Collected: 07/31/24 16:21
Matrix: Water
Date Received: 08/02/24 15:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**79.9**		5.00	2.25	mg/L			08/13/24 18:58	5
Sulfate	**553**		50.0	21.0	mg/L			08/13/24 19:10	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/06/24 09:30	08/07/24 14:18	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/06/24 09:30	08/07/24 14:18	1
Iron	<0.100		0.100	0.0360	mg/L		08/06/24 09:30	08/07/24 14:18	1
Lithium	**0.0245**		0.0100	0.00250	mg/L		08/06/24 09:30	08/07/24 14:18	1
Manganese	**0.275**		0.0100	0.00360	mg/L		08/06/24 09:30	08/07/24 14:18	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		08/06/24 09:30	08/07/24 14:18	1
Selenium	**0.00649**		0.00500	0.00140	mg/L		08/06/24 09:30	08/07/24 14:18	1
Sodium	**90.8**		1.00	0.480	mg/L		08/06/24 09:30	08/07/24 14:18	1
Strontium	**0.724**		0.00100	0.000530	mg/L		08/06/24 09:30	08/08/24 17:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.100	mg/L			08/05/24 22:32	1
Chemical Oxygen Demand (SM 5220D LL)	**11.1**		5.00	4.80	mg/L			08/13/24 08:45	1
Total Suspended Solids (USGS I-3765-85)	**1.50**	**J**	1.88	1.39	mg/L			08/06/24 10:24	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: TW-2
Lab Sample ID: 310-287374-8
Date Collected: 07/31/24 15:10
Matrix: Water
Date Received: 08/02/24 15:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.6**		5.00	2.25	mg/L			08/13/24 19:22	5
Sulfate	**379**		5.00	2.10	mg/L			08/13/24 19:22	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/06/24 09:30	08/07/24 14:20	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/06/24 09:30	08/07/24 14:20	1
Iron	<0.100		0.100	0.0360	mg/L		08/06/24 09:30	08/07/24 14:20	1
Lithium	**0.0442**		0.0100	0.00250	mg/L		08/06/24 09:30	08/07/24 14:20	1
Manganese	<0.0100		0.0100	0.00360	mg/L		08/06/24 09:30	08/07/24 14:20	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		08/06/24 09:30	08/07/24 14:20	1
Selenium	**0.0147**		0.00500	0.00140	mg/L		08/06/24 09:30	08/07/24 14:20	1
Sodium	**81.7**		1.00	0.480	mg/L		08/06/24 09:30	08/07/24 14:20	1
Strontium	**0.460**		0.00100	0.000530	mg/L		08/06/24 09:30	08/08/24 17:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.100	mg/L			08/05/24 22:33	1
Chemical Oxygen Demand (SM 5220D LL)	**5.37**		5.00	4.80	mg/L			08/13/24 08:45	1
Total Suspended Solids (USGS I-3765-85)	**1.75**	**J**	1.88	1.39	mg/L			08/05/24 15:36	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: MW-D
Lab Sample ID: 310-287374-9
Date Collected: 07/31/24 15:48
Matrix: Water
Date Received: 08/02/24 15:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.11**		5.00	2.25	mg/L			08/13/24 19:34	5
Sulfate	**125**		5.00	2.10	mg/L			08/13/24 19:34	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/06/24 09:30	08/07/24 14:22	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/06/24 09:30	08/07/24 14:22	1
Iron	<0.100		0.100	0.0360	mg/L		08/06/24 09:30	08/07/24 14:22	1
Lithium	**0.0329**		0.0100	0.00250	mg/L		08/06/24 09:30	08/07/24 14:22	1
Manganese	<0.0100		0.0100	0.00360	mg/L		08/06/24 09:30	08/07/24 14:22	1
Molybdenum	**0.00173**	**J**	0.00200	0.00130	mg/L		08/06/24 09:30	08/07/24 14:22	1
Selenium	**0.00318**	**J**	0.00500	0.00140	mg/L		08/06/24 09:30	08/07/24 14:22	1
Sodium	**50.0**		1.00	0.480	mg/L		08/06/24 09:30	08/07/24 14:22	1
Strontium	**0.415**		0.00100	0.000530	mg/L		08/06/24 09:30	08/08/24 17:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.100	mg/L			08/05/24 22:34	1
Chemical Oxygen Demand (SM 5220D LL)	**7.40**		5.00	4.80	mg/L			08/13/24 08:45	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			08/05/24 15:36	1

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: Leachate Sump
Lab Sample ID: 310-287374-10
Date Collected: 07/31/24 19:36
Matrix: Water
Date Received: 08/02/24 15:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	55.4		5.00	2.25	mg/L			08/13/24 20:11	5
Sulfate	1880		50.0	21.0	mg/L			08/13/24 20:23	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0126		0.00200	0.000530	mg/L		08/06/24 09:30	08/07/24 14:24	1
Cadmium	0.00215		0.000200	0.000100	mg/L		08/06/24 09:30	08/07/24 14:24	1
Iron	3.67		0.100	0.0360	mg/L		08/06/24 09:30	08/07/24 14:24	1
Lithium	0.00787	J	0.0100	0.00250	mg/L		08/06/24 09:30	08/07/24 14:24	1
Manganese	0.697		0.0100	0.00360	mg/L		08/06/24 09:30	08/07/24 14:24	1
Molybdenum	6.08		0.00800	0.00520	mg/L		08/06/24 09:30	08/08/24 17:48	4
Selenium	0.583		0.00500	0.00140	mg/L		08/06/24 09:30	08/07/24 14:24	1
Sodium	640		4.00	1.92	mg/L		08/06/24 09:30	08/08/24 17:48	4
Strontium	0.692		0.00400	0.00212	mg/L		08/06/24 09:30	08/08/24 17:48	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	0.231	J	0.500	0.210	mg/L		08/08/24 11:01	08/08/24 22:26	1
Chemical Oxygen Demand (SM 5220D LL)	79.6		5.00	4.80	mg/L			08/13/24 08:45	1
Total Suspended Solids (USGS I-3765-85)	1500		15.0	11.1	mg/L			08/05/24 15:36	1

Qualifiers

HPLC/IC

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

Metals

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

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-430381/3
Matrix: Water
Analysis Batch: 430381

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00	0.450	mg/L			08/13/24 10:54	1
Sulfate	<1.00		1.00	0.420	mg/L			08/13/24 10:54	1

Lab Sample ID: LCS 310-430381/4
Matrix: Water
Analysis Batch: 430381

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	9.752		mg/L		98	90 - 110		
Sulfate			10.0	10.22		mg/L		102	90 - 110		

Lab Sample ID: MB 310-430383/3
Matrix: Water
Analysis Batch: 430383

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00	0.450	mg/L			08/13/24 16:45	1
Sulfate	<1.00		1.00	0.420	mg/L			08/13/24 16:45	1

Lab Sample ID: LCS 310-430383/4
Matrix: Water
Analysis Batch: 430383

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.07		mg/L		101	90 - 110		
Sulfate			10.0	10.43		mg/L		104	90 - 110		

Lab Sample ID: 310-287374-2 MS
Matrix: Water
Analysis Batch: 430383

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	21.4		25.0	42.16		mg/L		83	80 - 120		
Sulfate	22.2		25.0	45.18		mg/L		92	80 - 120		

Lab Sample ID: 310-287374-2 MSD
Matrix: Water
Analysis Batch: 430383

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	21.4		25.0	44.38		mg/L		92	80 - 120	5	15
Sulfate	22.2		25.0	47.32		mg/L		101	80 - 120	5	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-429491/1-A
Matrix: Water
Analysis Batch: 429752

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 429491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/06/24 09:30	08/07/24 13:14	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/06/24 09:30	08/07/24 13:14	1
Iron	<0.100		0.100	0.0360	mg/L		08/06/24 09:30	08/07/24 13:14	1
Lithium	<0.0100		0.0100	0.00250	mg/L		08/06/24 09:30	08/07/24 13:14	1
Manganese	<0.0100		0.0100	0.00360	mg/L		08/06/24 09:30	08/07/24 13:14	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		08/06/24 09:30	08/07/24 13:14	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/06/24 09:30	08/07/24 13:14	1
Sodium	<1.00		1.00	0.480	mg/L		08/06/24 09:30	08/07/24 13:14	1
Strontium	<0.00100		0.00100	0.000530	mg/L		08/06/24 09:30	08/07/24 13:14	1

Lab Sample ID: LCS 310-429491/2-A
Matrix: Water
Analysis Batch: 429752

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 429491

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2140		mg/L		107	80 - 120
Cadmium	0.100	0.1013		mg/L		101	80 - 120
Iron	0.200	0.2181		mg/L		109	80 - 120
Lithium	0.200	0.2103		mg/L		105	80 - 120
Manganese	0.100	0.09763		mg/L		98	80 - 120
Molybdenum	0.200	0.1977		mg/L		99	80 - 120
Selenium	0.400	0.4122		mg/L		103	80 - 120
Sodium	2.00	2.099		mg/L		105	80 - 120
Strontium	0.200	0.2106		mg/L		105	80 - 120

Lab Sample ID: 310-287374-2 DU
Matrix: Water
Analysis Batch: 429752

Client Sample ID: MW-11
Prep Type: Total/NA
Prep Batch: 429491

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0101		0.009621		mg/L		5	20
Cadmium	<0.000200		<0.000200		mg/L		NC	20
Iron	42.4		41.83		mg/L		1	20
Lithium	0.00477	J	0.004611	J	mg/L		3	20
Manganese	4.63		4.558		mg/L		1	20
Molybdenum	<0.00200		<0.00200		mg/L		NC	20
Selenium	0.00210	J	0.002438	J	mg/L		15	20
Sodium	82.7		83.01		mg/L		0.4	20
Strontium	0.578		0.5855		mg/L		1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-429447/53
Matrix: Water
Analysis Batch: 429447

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.200		0.200	0.100	mg/L			08/05/24 22:23	1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 310-429447/54
Matrix: Water
Analysis Batch: 429447

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	8.55	8.563		mg/L		100	90 - 110

Lab Sample ID: 310-287374-1 MS
Matrix: Water
Analysis Batch: 429447

Client Sample ID: MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	0.131	J	1.00	1.039		mg/L		91	90 - 110

Lab Sample ID: 310-287374-1 MSD
Matrix: Water
Analysis Batch: 429447

Client Sample ID: MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.131	J	1.00	1.049		mg/L		92	90 - 110	1	13

Lab Sample ID: MB 310-429795/1-A
Matrix: Water
Analysis Batch: 429860

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 429795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500	0.210	mg/L		08/08/24 11:01	08/08/24 22:16	1

Lab Sample ID: LCS 310-429795/2-A
Matrix: Water
Analysis Batch: 429860

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 429795

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	4.00	4.038		mg/L		101	90 - 110

Method: 5220D LL - COD

Lab Sample ID: MB 310-430170/5
Matrix: Water
Analysis Batch: 430170

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00	4.80	mg/L			08/13/24 08:45	1

Lab Sample ID: LCS 310-430170/3
Matrix: Water
Analysis Batch: 430170

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	124.3		mg/L		99	85 - 110

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

Lab Sample ID: MB 310-429415/1
Matrix: Water
Analysis Batch: 429415

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			08/05/24 14:05	1

Lab Sample ID: LCS 310-429415/2
Matrix: Water
Analysis Batch: 429415

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	98.00		mg/L		98	81 - 116

Lab Sample ID: MB 310-429430/1
Matrix: Water
Analysis Batch: 429430

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			08/05/24 15:36	1

Lab Sample ID: LCS 310-429430/2
Matrix: Water
Analysis Batch: 429430

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	107.0		mg/L		107	81 - 116

Lab Sample ID: MB 310-429521/1
Matrix: Water
Analysis Batch: 429521

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			08/06/24 10:24	1

Lab Sample ID: LCS 310-429521/2
Matrix: Water
Analysis Batch: 429521

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

HPLC/IC

Analysis Batch: 430381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-1	MW-7	Total/NA	Water	9056A	
MB 310-430381/3	Method Blank	Total/NA	Water	9056A	
LCS 310-430381/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 430383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-2	MW-11	Total/NA	Water	9056A	
310-287374-3	MW-15	Total/NA	Water	9056A	
310-287374-4	MW-16	Total/NA	Water	9056A	
310-287374-5	MW-17	Total/NA	Water	9056A	
310-287374-6	MW-18R	Total/NA	Water	9056A	
310-287374-7	MW-21	Total/NA	Water	9056A	
310-287374-7	MW-21	Total/NA	Water	9056A	
310-287374-8	TW-2	Total/NA	Water	9056A	
310-287374-9	MW-D	Total/NA	Water	9056A	
310-287374-10	Leachate Sump	Total/NA	Water	9056A	
310-287374-10	Leachate Sump	Total/NA	Water	9056A	
MB 310-430383/3	Method Blank	Total/NA	Water	9056A	
LCS 310-430383/4	Lab Control Sample	Total/NA	Water	9056A	
310-287374-2 MS	MW-11	Total/NA	Water	9056A	
310-287374-2 MSD	MW-11	Total/NA	Water	9056A	

Metals

Prep Batch: 429491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-1	MW-7	Total/NA	Water	3005A	
310-287374-2	MW-11	Total/NA	Water	3005A	
310-287374-3	MW-15	Total/NA	Water	3005A	
310-287374-4	MW-16	Total/NA	Water	3005A	
310-287374-5	MW-17	Total/NA	Water	3005A	
310-287374-6	MW-18R	Total/NA	Water	3005A	
310-287374-7	MW-21	Total/NA	Water	3005A	
310-287374-8	TW-2	Total/NA	Water	3005A	
310-287374-9	MW-D	Total/NA	Water	3005A	
310-287374-10	Leachate Sump	Total/NA	Water	3005A	
MB 310-429491/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-429491/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-287374-2 DU	MW-11	Total/NA	Water	3005A	

Analysis Batch: 429752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-1	MW-7	Total/NA	Water	6020B	429491
310-287374-2	MW-11	Total/NA	Water	6020B	429491
310-287374-3	MW-15	Total/NA	Water	6020B	429491
310-287374-4	MW-16	Total/NA	Water	6020B	429491
310-287374-5	MW-17	Total/NA	Water	6020B	429491
310-287374-6	MW-18R	Total/NA	Water	6020B	429491
310-287374-7	MW-21	Total/NA	Water	6020B	429491
310-287374-8	TW-2	Total/NA	Water	6020B	429491
310-287374-9	MW-D	Total/NA	Water	6020B	429491

Metals (Continued)

Analysis Batch: 429752 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-10	Leachate Sump	Total/NA	Water	6020B	429491
MB 310-429491/1-A	Method Blank	Total/NA	Water	6020B	429491
LCS 310-429491/2-A	Lab Control Sample	Total/NA	Water	6020B	429491
310-287374-2 DU	MW-11	Total/NA	Water	6020B	429491

Analysis Batch: 429895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-5	MW-17	Total/NA	Water	6020B	429491
310-287374-6	MW-18R	Total/NA	Water	6020B	429491
310-287374-7	MW-21	Total/NA	Water	6020B	429491
310-287374-8	TW-2	Total/NA	Water	6020B	429491
310-287374-9	MW-D	Total/NA	Water	6020B	429491
310-287374-10	Leachate Sump	Total/NA	Water	6020B	429491

General Chemistry

Analysis Batch: 429415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-1	MW-7	Total/NA	Water	I-3765-85	
310-287374-3	MW-15	Total/NA	Water	I-3765-85	
MB 310-429415/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-429415/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 429430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-2	MW-11	Total/NA	Water	I-3765-85	
310-287374-4	MW-16	Total/NA	Water	I-3765-85	
310-287374-6	MW-18R	Total/NA	Water	I-3765-85	
310-287374-8	TW-2	Total/NA	Water	I-3765-85	
310-287374-9	MW-D	Total/NA	Water	I-3765-85	
310-287374-10	Leachate Sump	Total/NA	Water	I-3765-85	
MB 310-429430/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-429430/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 429447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-1	MW-7	Total/NA	Water	350.1	
310-287374-2	MW-11	Total/NA	Water	350.1	
310-287374-3	MW-15	Total/NA	Water	350.1	
310-287374-4	MW-16	Total/NA	Water	350.1	
310-287374-5	MW-17	Total/NA	Water	350.1	
310-287374-6	MW-18R	Total/NA	Water	350.1	
310-287374-7	MW-21	Total/NA	Water	350.1	
310-287374-8	TW-2	Total/NA	Water	350.1	
310-287374-9	MW-D	Total/NA	Water	350.1	
MB 310-429447/53	Method Blank	Total/NA	Water	350.1	
LCS 310-429447/54	Lab Control Sample	Total/NA	Water	350.1	
310-287374-1 MS	MW-7	Total/NA	Water	350.1	
310-287374-1 MSD	MW-7	Total/NA	Water	350.1	

QC Association Summary

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

General Chemistry

Analysis Batch: 429521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-5	MW-17	Total/NA	Water	I-3765-85	
310-287374-7	MW-21	Total/NA	Water	I-3765-85	
MB 310-429521/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-429521/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Prep Batch: 429795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-10	Leachate Sump	Total/NA	Water	Distill/Ammonia	
MB 310-429795/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 310-429795/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 429860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-10	Leachate Sump	Total/NA	Water	350.1	429795
MB 310-429795/1-A	Method Blank	Total/NA	Water	350.1	429795
LCS 310-429795/2-A	Lab Control Sample	Total/NA	Water	350.1	429795

Analysis Batch: 430170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-287374-1	MW-7	Total/NA	Water	5220D LL	
310-287374-2	MW-11	Total/NA	Water	5220D LL	
310-287374-3	MW-15	Total/NA	Water	5220D LL	
310-287374-4	MW-16	Total/NA	Water	5220D LL	
310-287374-5	MW-17	Total/NA	Water	5220D LL	
310-287374-6	MW-18R	Total/NA	Water	5220D LL	
310-287374-7	MW-21	Total/NA	Water	5220D LL	
310-287374-8	TW-2	Total/NA	Water	5220D LL	
310-287374-9	MW-D	Total/NA	Water	5220D LL	
310-287374-10	Leachate Sump	Total/NA	Water	5220D LL	
MB 310-430170/5	Method Blank	Total/NA	Water	5220D LL	
LCS 310-430170/3	Lab Control Sample	Total/NA	Water	5220D LL	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: MW-7
Lab Sample ID: 310-287374-1
Date Collected: 07/30/24 15:15
Matrix: Water
Date Received: 08/02/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	430381	ZRI4	EET CF	08/13/24 16:33
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429752	NFT2	EET CF	08/07/24 13:54
Total/NA	Analysis	350.1		1	429447	ZJX4	EET CF	08/05/24 22:25
Total/NA	Analysis	5220D LL		1	430170	ENB7	EET CF	08/13/24 08:45
Total/NA	Analysis	I-3765-85		1	429415	ENB7	EET CF	08/05/24 14:05

Client Sample ID: MW-11
Lab Sample ID: 310-287374-2
Date Collected: 07/31/24 17:37
Matrix: Water
Date Received: 08/02/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	430383	ZRI4	EET CF	08/13/24 17:09
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429752	NFT2	EET CF	08/07/24 13:56
Total/NA	Analysis	350.1		1	429447	ZJX4	EET CF	08/05/24 22:27
Total/NA	Analysis	5220D LL		1	430170	ENB7	EET CF	08/13/24 08:45
Total/NA	Analysis	I-3765-85		1	429430	ENB7	EET CF	08/05/24 15:36

Client Sample ID: MW-15
Lab Sample ID: 310-287374-3
Date Collected: 07/30/24 15:48
Matrix: Water
Date Received: 08/02/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	430383	ZRI4	EET CF	08/13/24 18:09
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429752	NFT2	EET CF	08/07/24 14:00
Total/NA	Analysis	350.1		1	429447	ZJX4	EET CF	08/05/24 22:28
Total/NA	Analysis	5220D LL		1	430170	ENB7	EET CF	08/13/24 08:45
Total/NA	Analysis	I-3765-85		1	429415	ENB7	EET CF	08/05/24 14:05

Client Sample ID: MW-16
Lab Sample ID: 310-287374-4
Date Collected: 07/31/24 16:57
Matrix: Water
Date Received: 08/02/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	430383	ZRI4	EET CF	08/13/24 18:22
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429752	NFT2	EET CF	08/07/24 14:03
Total/NA	Analysis	350.1		1	429447	ZJX4	EET CF	08/05/24 22:28
Total/NA	Analysis	5220D LL		1	430170	ENB7	EET CF	08/13/24 08:45
Total/NA	Analysis	I-3765-85		1	429430	ENB7	EET CF	08/05/24 15:36

Client Sample ID: MW-17
Lab Sample ID: 310-287374-5

Date Collected: 07/31/24 15:48
Matrix: Water
Date Received: 08/02/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	430383	ZRI4	EET CF	08/13/24 18:34
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429752	NFT2	EET CF	08/07/24 14:14
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429895	NFT2	EET CF	08/08/24 17:37
Total/NA	Analysis	350.1		1	429447	ZJX4	EET CF	08/05/24 22:30
Total/NA	Analysis	5220D LL		1	430170	ENB7	EET CF	08/13/24 08:45
Total/NA	Analysis	I-3765-85		1	429521	DGU1	EET CF	08/06/24 10:24

Client Sample ID: MW-18R
Lab Sample ID: 310-287374-6

Date Collected: 07/30/24 14:14
Matrix: Water
Date Received: 08/02/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	430383	ZRI4	EET CF	08/13/24 18:46
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429752	NFT2	EET CF	08/07/24 14:16
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429895	NFT2	EET CF	08/08/24 17:40
Total/NA	Analysis	350.1		1	429447	ZJX4	EET CF	08/05/24 22:30
Total/NA	Analysis	5220D LL		1	430170	ENB7	EET CF	08/13/24 08:45
Total/NA	Analysis	I-3765-85		1	429430	ENB7	EET CF	08/05/24 15:36

Client Sample ID: MW-21
Lab Sample ID: 310-287374-7

Date Collected: 07/31/24 16:21
Matrix: Water
Date Received: 08/02/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	430383	ZRI4	EET CF	08/13/24 18:58
Total/NA	Analysis	9056A		50	430383	ZRI4	EET CF	08/13/24 19:10
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429752	NFT2	EET CF	08/07/24 14:18
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429895	NFT2	EET CF	08/08/24 17:42
Total/NA	Analysis	350.1		1	429447	ZJX4	EET CF	08/05/24 22:32
Total/NA	Analysis	5220D LL		1	430170	ENB7	EET CF	08/13/24 08:45
Total/NA	Analysis	I-3765-85		1	429521	DGU1	EET CF	08/06/24 10:24

Client Sample ID: TW-2
Lab Sample ID: 310-287374-8

Date Collected: 07/31/24 15:10
Matrix: Water
Date Received: 08/02/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	430383	ZRI4	EET CF	08/13/24 19:22

Lab Chronicle

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Client Sample ID: TW-2
Lab Sample ID: 310-287374-8
Date Collected: 07/31/24 15:10
Matrix: Water
Date Received: 08/02/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429752	NFT2	EET CF	08/07/24 14:20
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429895	NFT2	EET CF	08/08/24 17:44
Total/NA	Analysis	350.1		1	429447	ZJX4	EET CF	08/05/24 22:33
Total/NA	Analysis	5220D LL		1	430170	ENB7	EET CF	08/13/24 08:45
Total/NA	Analysis	I-3765-85		1	429430	ENB7	EET CF	08/05/24 15:36

Client Sample ID: MW-D
Lab Sample ID: 310-287374-9
Date Collected: 07/31/24 15:48
Matrix: Water
Date Received: 08/02/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	430383	ZRI4	EET CF	08/13/24 19:34
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429752	NFT2	EET CF	08/07/24 14:22
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429895	NFT2	EET CF	08/08/24 17:46
Total/NA	Analysis	350.1		1	429447	ZJX4	EET CF	08/05/24 22:34
Total/NA	Analysis	5220D LL		1	430170	ENB7	EET CF	08/13/24 08:45
Total/NA	Analysis	I-3765-85		1	429430	ENB7	EET CF	08/05/24 15:36

Client Sample ID: Leachate Sump
Lab Sample ID: 310-287374-10
Date Collected: 07/31/24 19:36
Matrix: Water
Date Received: 08/02/24 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	430383	ZRI4	EET CF	08/13/24 20:11
Total/NA	Analysis	9056A		50	430383	ZRI4	EET CF	08/13/24 20:23
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		1	429752	NFT2	EET CF	08/07/24 14:24
Total/NA	Prep	3005A			429491	QTZ5	EET CF	08/06/24 09:30
Total/NA	Analysis	6020B		4	429895	NFT2	EET CF	08/08/24 17:48
Total/NA	Prep	Distill/Ammonia			429795	MQ8M	EET CF	08/08/24 11:01
Total/NA	Analysis	350.1		1	429860	ZJX4	EET CF	08/08/24 22:26
Total/NA	Analysis	5220D LL		1	430170	ENB7	EET CF	08/13/24 08:45
Total/NA	Analysis	I-3765-85		1	429430	ENB7	EET CF	08/05/24 15:36

Laboratory References:

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

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

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
6020B	3005A	Water	Lithium

Method Summary

Client: SCS Engineers
Job ID: 310-287374-1
Project/Site: Climax Moly Landfill Sampling Fall 2024

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
5220D LL	COD	SM	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
Distill/Ammonia	Distillation, Ammonia	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

eurofins | Environment Testing America

310-287374 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: SCS			
City/State: CITY		STATE IA	Project:
Receipt Information			
Date/Time Received:	DATE 8-2-24	TIME 1530	Received By: SM

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: 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): 0.5	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 TestAmerica, Cedar Falls
3019 Venture Way

Cedar Falls IA 50613-6907
phone 319.277.2401 fax 319.277.2425

Chain of Custody Record

eurofins

Regulatory Program ☐ DW ☐ NPDES ☐ RCRA ☑ Other: **Groundwater**

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

Client Contact	**Project Manager:**	**Site Contact:**	**Date**	COC No
Kevin Jensen - SCS Engineers	Email:	**Lab Contact:**	**Carrier:**	1 of 1 COCs
1690 All-State Court, Suite 100	Cell			Sampler:
West Des Moines, Iowa 50265	**Analysis Turnaround Time**			**For Lab Use Only:**
515-631-6154	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
kjensen@scsengineers.com	Other:			Lab Sampling
Project Name: Climax Moly Landfill Sampling Fall 2024	☐ 2 weeks			Job / SDG No
Site: Climax Molybdenum Landfill	☐ 1 week			
P O #	☐ 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)	Total Arsenic	Total Cadmium	Total Iron	Total Lithium	Total Manganese	Total Molybdenum	Total Selenium	Total Sodium	Total Strontium	Total Sulfate	Total Suspended Solids	Ammonia-Nitrogen	Chloride	Chemical Oxygen Demand				Sample Specific Notes
MW 7	7/30/24	15:15	G					X	X	X	X	X	X	X	X	X	X	X	X	X	X				
MW 11	7/31/24	17:37	G					X	X	X	X	X	X	X	X	X	X	X	X	X	X				
MW 15	7/30/24	15:48	G					X	X	X	X	X	X	X	X	X	X	X	X	X	X				
MW 16	7/31/24	16:59	G					X	X	X	X	X	X	X	X	X	X	X	X	X	X				
MW 17	7/31/24	15:48	G					X	X	X	X	X	X	X	X	X	X	X	X	X	X				
MW 18R	7/30/24	14:14	G					X	X	X	X	X	X	X	X	X	X	X	X	X	X				
MW-21	7/31/24	16:21	G					X	X	X	X	X	X	X	X	X	X	X	X	X	X				
TW-2	7/31/24	15:10	G					X	X	X	X	X	X	X	X	X	X	X	X	X	X				
MW D	7/31/24	15:48	G					X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Leachate Sump			G					X	X	X	X	X	X	X	X	X	X	X	X	X	X				

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

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.		Cooler Temp (°C). Obs'd _____ Corr'd _____ Therm ID No _____		
Relinquished by: Cole Tesar	Company: SCS	Date/Time: 8/2/24	Received by:	Company:	Date/Time
Relinquished by:	Company:	Date/Time	Received by:	Company:	Date/Time
Relinquished by:	Company:	Date/Time	Received in Laboratory by: CGC	Company: Eurofins	Date/Time 8-2-24 1330

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

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-287374-1
SDG Number:

Login Number: 287374
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	

Appendix B-2

Data Validation

Completed by: Semir Omerovic
Sampling Date: 5/23/2024
Lab Report Date: 6/7/2024
Site Name: Climax Molybdenum Landfill
Lab Report Number: 310-282095-1

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Reporting Limits	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			
Trip Blank Detections			X	
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD		X		MS/MSD results were outside recovery limits for iron, manganese, and sodium associated with analysis batch 423331.
Surrogates (organics only)			X	
Precision				
QA/QC Sample RPDs	X			
Field Duplicates	X			The duplicate sample was collected from MW-17 during the spring 2024 sampling event. All parameters had <50% relative difference. Constituents with J flag concentrations were not considered for the duplicate sample comparisons.

Completed by: Semir Omerovic
Sampling Date: 7/30/2024
Lab Report Date: 8/15/2024
Site Name: Climax Molybdenum Landfill
Lab Report Number: 310-287374-1

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Reporting Limits	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			
Trip Blank Detections			X	
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)			X	
Precision				
QA/QC Sample RPDs	X			
Field Duplicates	X			The duplicate sample was collected from MW-15 during the fall 2024 sampling event. All parameters had <50% relative difference. Constituents with J flag concentrations were not considered for the duplicate sample comparisons.

Appendix C

Summary of Groundwater Chemistry

SCS ENGINEERS

Summary of Groundwater Chemistry
Climax Molybdenum Industrial Landfill (56 SDP 06 80P)

Total Metals Constituents	Sample Date	MW-7 UPG	MW-18R UPG	MW-11 DNG	MW-15 DNG	MW-16 DNG	MW-17 DNG	MW-21 DNG	TW-2 DNG
Arsenic, mg/L (CAS NO - 7440-38-2)	4/14/2015	< 0.001	**0.006**	**0.008**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/15/2015	N/A	**0.004**	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	5/24/2016	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	10/10/2016	< 0.01	< 0.01	**0.01**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	4/11/2017	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	10/18/2017	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	4/12/2018	**0.000854**	< 0.002	**0.00385**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	8/2/2018	**0.00124**	< 0.002	**0.00675**	< 0.002	< 0.002	**0.000583**	< 0.002	< 0.002
	4/9/2019	< 0.002	< 0.002	**0.00639**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	8/28/2019	**0.000836**	< 0.002	**0.00721**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/16/2020	< 0.002	< 0.002	**0.00599**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002
	7/28/2020	0.00169*	< 0.002	**0.00505**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	7/28/2020	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A
	3/18/2021	0.000951*	< 0.002	**0.00821**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/18/2021	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/1/2021	0.000799*	< 0.002	**0.00651**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/1/2021	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A
	6/29/2022	**0.00259**	< 0.002	**0.00434**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	6/29/2022	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A
	8/16/2022	0.00113*	< 0.002	**0.00944**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	8/16/2022	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A
	4/7/2023	0.000721*	< 0.002	**0.00636**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	4/7/2023	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A
	7/27/2023	0.000601*	< 0.002	**0.00767**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	7/27/2023	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A
	5/22/2024	**0.00283**	< 0.002	**0.00459**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	5/22/2024	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A
	7/30/2024	0.00136*	< 0.002	**0.0101**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	7/30/2024	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A
Cadmium, mg/L (CAS NO - 7440-43-9)	4/14/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/15/2015	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	5/24/2016	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/10/2016	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4/11/2017	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/18/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4/12/2018	**0.0001**	< 0.0005	< 0.0005	< 0.0005	**0.000189**	< 0.0005	< 0.0005	< 0.0005
	8/2/2018	**0.000144**	< 0.0005	**0.000246**	< 0.0005	**0.000129**	< 0.0005	< 0.0005	< 0.0005
	4/9/2019	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.000191**	< 0.0005	< 0.0005	< 0.0005
	8/28/2019	< 0.0001	< 0.0001	< 0.0001	< 0.0001	**0.000078**	< 0.0001	**0.000145**	< 0.0001
	3/16/2020	0.000054*	< 0.0001	< 0.0001	< 0.0001	0.000044*	< 0.0001	0.000051*	< 0.0001
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0001
	7/28/2020	< 0.0001	< 0.0001	< 0.0001	< 0.0001	**0.000125**	< 0.0001	**0.000184**	< 0.0001
	7/28/2020	N/A	N/A	N/A	< 0.0001	N/A	N/A	N/A	N/A
	3/18/2021	0.000091*	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	3/18/2021	**0.000114**	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/1/2021	0.000075*	< 0.0001	< 0.0001	< 0.0001	**0.000218**	< 0.0001	**0.000145**	< 0.0001
	9/1/2021	N/A	N/A	N/A	< 0.0001	N/A	N/A	N/A	N/A
	6/29/2022	< 0.0001	< 0.0001	< 0.0001	< 0.0001	**0.000381**	< 0.0001	**0.000201**	< 0.0001
	6/29/2022	N/A	N/A	N/A	< 0.0001	N/A	N/A	N/A	N/A
	8/16/2022	< 0.0001	< 0.0001	< 0.0001	< 0.0001	**0.000169**	< 0.0001	**0.000155**	< 0.0001
	8/16/2022	N/A	N/A	N/A	< 0.0001	N/A	N/A	N/A	N/A
	4/7/2023	0.000166*	< 0.0002	0.000106*	< 0.0002	0.000132*	< 0.0002	< 0.0002	< 0.0002
	4/7/2023	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A
	7/27/2023	0.000114*	< 0.0002	< 0.0002	< 0.0002	0.000101*	< 0.0002	0.000188*	< 0.0002
	7/27/2023	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A
	5/22/2024	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.000166*	< 0.0002	< 0.0002	< 0.0002
	5/22/2024	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A
	7/30/2024	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	7/30/2024	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A
Iron, mg/L (CAS NO - 7439-89-6)	1/15/2015	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A
	4/14/2015	**0.13**	**14**	**8.5**	**0.13**	**0.29**	**0.12**	**1.2**	**0.21**
	7/15/2015	N/A	**9.6**	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	**0.9**	**1.4**	**13**	**0.22**	**0.44**	**0.57**	**1.4**	**1.7**
	5/24/2016	**0.1**	**0.05**	**39**	< 0.02	**0.37**	< 0.02	< 0.02	**0.08**
	10/10/2016	**0.03**	**0.37**	**58**	< 0.02	**0.03**	**0.1**	**0.18**	**0.04**
	4/11/2017	**0.14**	**0.12**	**40**	**0.09**	**0.17**	**0.14**	**0.26**	**0.08**
	10/18/2017	**0.03**	**0.07**	**37**	**0.03**	**0.06**	**0.07**	**0.1**	< 0.02
	4/12/2018	**0.0948**	< 0.1	**40.9**	< 0.1	< 0.1	**0.171**	< 0.1	< 0.1

SCS ENGINEERS

Summary of Groundwater Chemistry
Climax Molybdenum Industrial Landfill (56 SDP 06 80P)

Total Metals Constituents	Sample Date	MW-7 UPG	MW-18R UPG	MW-11 DNG	MW-15 DNG	MW-16 DNG	MW-17 DNG	MW-21 DNG	TW-2 DNG
Iron, mg/L (CAS NO - 7439-89-6)	8/2/2018	< 0.1	0.303	54.6	0.163	< 0.1	0.24	< 0.1	< 0.1
	4/9/2019	0.292	< 0.1	20.6	< 0.1	< 0.1	0.0691	< 0.1	< 0.1
	8/28/2019	0.327	< 0.1	35.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	3/16/2020	0.817	< 0.1	40.1	< 0.1	< 0.1	0.116	< 0.1	< 0.1
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.1
	7/28/2020	3.42	0.0717*	9.6	< 0.1	< 0.1	0.177	0.627	< 0.1
	7/28/2020	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A
	3/18/2021	1.46	0.0812*	47.8	< 0.1	< 0.1	0.0598*	< 0.1	< 0.1
	3/18/2021	0.202	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/1/2021	1.2	< 0.1	36.7	< 0.1	< 0.1	0.0371*	< 0.1	< 0.1
	9/1/2021	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A
	6/29/2022	4.61	< 0.1	27.8	< 0.1	0.0622*	0.0954*	< 0.1	< 0.1
	6/29/2022	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A
	8/16/2022	1.08	< 0.1	35.2	< 0.1	< 0.1	0.0782*	< 0.1	< 0.1
	8/16/2022	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A
	4/7/2023	0.0509*	< 0.1	22.9	< 0.1	< 0.1	0.0473*	< 0.1	< 0.1
	4/7/2023	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A
	7/27/2023	1.13	< 0.1	31.4	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	7/27/2023	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A
	5/22/2024	6.23	< 0.1	30.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	5/22/2024	N/A	N/A	N/A	N/A	N/A	< 0.1	N/A	N/A
	7/30/2024	2.44	< 0.1	42.4	< 0.1	< 0.1	0.0616*	< 0.1	< 0.1
	7/30/2024	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A
Lithium, mg/L (CAS NO - 7439-93-2)	4/14/2015	0.03	0.04	0.01	0.04	0.04	0.07	0.04	0.03
	7/15/2015	N/A	0.04	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	0.03	0.03	0.01	0.04	0.04	0.07	0.05	0.04
	5/24/2016	0.02	0.03	< 0.01	0.02	0.03	0.07	0.03	0.03
	10/10/2016	0.03	0.03	< 0.01	0.03	0.03	0.06	0.04	0.03
	4/11/2017	0.03	0.03	0.01	0.02	0.04	0.07	0.02	0.04
	10/18/2017	0.03	0.03	< 0.01	0.03	0.03	0.07	0.04	0.03
	4/12/2018	0.0295	0.0311	0.00485	0.0313	0.0368	0.0582	0.0165	0.0346
	8/2/2018	0.032	0.0289	0.00412	0.032	0.0466	0.0641	0.0366	0.0365
	4/9/2019	0.0278	0.0305	0.0103	0.0263	0.0369	0.0668	0.033	0.0352
	8/28/2019	0.0263	0.0301	0.00496	0.0298	0.0354	0.0669	0.0393	0.0388
	3/16/2020	0.0251	0.0308	0.00875*	0.0275	0.0384	0.0707	0.0375	0.036
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0338
	7/28/2020	0.0227	0.0294	0.014	0.0342	0.0383	0.0651	0.0364	0.0363
	7/28/2020	N/A	N/A	N/A	0.0347	N/A	N/A	N/A	N/A
	3/18/2021	0.0247	0.0303	0.00998*	0.0304	0.0378	0.0709	0.0343	0.0377
	3/18/2021	0.0247	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/1/2021	0.0219	0.0284	0.0085*	0.0275	0.0307	0.0648	0.0285	0.0365
	9/1/2021	N/A	N/A	N/A	0.0315	N/A	N/A	N/A	N/A
	6/29/2022	0.0264	0.0358	0.0126*	0.035	0.0273	0.0779	0.0279	0.0482
	6/29/2022	N/A	N/A	N/A	0.0344	N/A	N/A	N/A	N/A
	8/16/2022	0.024	0.0303	0.00538*	0.0288	0.0299	0.0636	0.0348	0.0392
	8/16/2022	N/A	N/A	N/A	0.0318	N/A	N/A	N/A	N/A
	4/7/2023	0.0218	0.0329	0.0097*	0.021	0.0263	0.0718	0.0245	0.0411
	4/7/2023	N/A	N/A	N/A	0.0228	N/A	N/A	N/A	N/A
	7/27/2023	0.0219	0.0304	0.00553*	0.0289	0.0256	0.0668	0.0257	0.0413
	7/27/2023	N/A	N/A	N/A	0.0281	N/A	N/A	N/A	N/A
	5/22/2024	0.0236	0.0305	0.00674*	0.0239	0.0232	0.0643	0.025	0.0372
	5/22/2024	N/A	N/A	N/A	N/A	N/A	0.0685	N/A	N/A
	7/30/2024	0.0211	0.0312	0.00477*	0.0329	0.0372	0.0734	0.0245	0.0442
	7/30/2024	N/A	N/A	N/A	0.0325	N/A	N/A	N/A	N/A
Manganese, mg/L (CAS NO - 7439-96-5)	4/14/2015	0.14	0.35	6.8	< 0.02	0.47	0.04	1.6	0.03
	7/15/2015	N/A	0.25	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	< 0.02	< 0.02	5.9	< 0.02	0.46	< 0.02	0.76	< 0.02
	5/24/2016	0.38	< 0.02	4.3	< 0.02	1	< 0.02	0.34	< 0.02
	10/10/2016	1.2	< 0.02	4.6	< 0.02	0.72	0.16	1.2	< 0.02
	4/11/2017	1.6	< 0.02	5.2	< 0.02	0.44	0.11	0.4	< 0.02
	10/18/2017	1.4	< 0.02	3.5	< 0.02	0.5	0.56	0.17	< 0.02
	4/12/2018	2.3	0.00678	4.01	< 0.01	0.411	0.923	0.0906	< 0.01
	8/2/2018	2.72	0.00698	4.71	0.0128	0.29	0.642	0.0235	< 0.01
	4/9/2019	2.49	< 0.01	6.6	< 0.01	0.795	0.0644	0.135	< 0.01
	8/28/2019	3.01	< 0.01	5.12	< 0.01	0.224	0.107	0.518	< 0.01
	3/16/2020	2.4	< 0.01	5.25	< 0.01	0.184	0.475	0.128	< 0.01
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.01
	7/28/2020	3.22	0.0111	6.37	< 0.01	0.218	0.837	0.905	< 0.01
	7/28/2020	N/A	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A
	3/18/2021	2.32	0.0151	4.49	< 0.01	0.0432	1.35	0.0389	< 0.01
	3/18/2021	2.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry
Climax Molybdenum Industrial Landfill (56 SDP 06 80P)

Total Metals Constituents	Sample Date	MW-7 UPG	MW-18R UPG	MW-11 DNG	MW-15 DNG	MW-16 DNG	MW-17 DNG	MW-21 DNG	TW-2 DNG
Manganese, mg/L (CAS NO - 7439-96-5)	9/1/2021	2.33	< 0.01	4.45	< 0.01	0.339	1.07	0.34	< 0.01
	9/1/2021	N/A	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A
	6/29/2022	2.52	< 0.01	4.48	< 0.01	0.755	0.955	0.452	< 0.01
	6/29/2022	N/A	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A
	8/16/2022	2.23	< 0.01	4.96	< 0.01	0.438	1.09	0.43	< 0.01
	8/16/2022	N/A	N/A	N/A	0.00606*	N/A	N/A	N/A	N/A
	4/7/2023	1.98	< 0.01	6.06	0.00485*	0.0805	1.39	0.0306	< 0.01
	4/7/2023	N/A	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A
	7/27/2023	2.46	< 0.01	5	< 0.01	0.106	0.717	0.136	< 0.01
	7/27/2023	N/A	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A
	5/22/2024	2.33	0.00457*	5.35	< 0.01	0.194	0.318	0.0253	< 0.01
	5/22/2024	N/A	N/A	N/A	N/A	N/A	0.447	N/A	N/A
	7/30/2024	2.18	< 0.01	4.63	< 0.01	0.0389	1.26	0.275	< 0.01
	7/30/2024	N/A	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A
Molybdenum, mg/L (CAS NO - 7439-98-7)	1/15/2015	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A
	4/14/2015	< 0.01	0.02	< 0.01	0.01	< 0.01	< 0.01	0.02	< 0.01
	7/15/2015	N/A	0.02	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	5/24/2016	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	10/10/2016	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/11/2017	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	10/18/2017	< 0.04	< 0.05	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
	4/12/2018	0.00447	0.00296	0.00306	0.00293	0.00304	0.00417	0.00085	0.00305
	8/2/2018	0.0023	0.00173	< 0.004	0.00273	0.00229	0.00382	< 0.002	0.00155
	4/9/2019	< 0.002	0.0013	0.00208	0.00187	0.00126	0.00329	< 0.002	0.0015
	8/28/2019	0.00129	0.00138	< 0.002	0.00216	0.00138	0.00175	< 0.002	0.00141
	3/16/2020	< 0.002	0.00114*	< 0.002	0.00161*	< 0.002	0.00165*	< 0.002	0.00144*
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00165*
	7/28/2020	0.0015*	0.00121*	0.0026	0.00192*	0.00141*	0.00136*	< 0.002	0.00138*
	7/28/2020	N/A	N/A	N/A	0.00191*	N/A	N/A	N/A	N/A
	3/18/2021	0.00136*	< 0.002	< 0.002	0.00182*	< 0.002	0.00281	< 0.002	0.00146*
	3/18/2021	0.00155*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/1/2021	0.00148*	< 0.002	< 0.002	0.00198*	< 0.002	0.00254	< 0.002	< 0.002
	9/1/2021	N/A	N/A	N/A	0.00197*	N/A	N/A	N/A	N/A
	6/29/2022	< 0.002	0.00132*	0.00138*	0.002	< 0.002	0.00199*	< 0.002	0.0013*
	6/29/2022	N/A	N/A	N/A	0.002	N/A	N/A	N/A	N/A
	8/16/2022	0.00158*	0.0014*	0.00131*	0.00215	0.00122*	0.00206	< 0.002	0.00128*
	8/16/2022	N/A	N/A	N/A	0.00207	N/A	N/A	N/A	N/A
	4/7/2023	0.00199*	0.0013*	0.0039	0.00167*	0.000998*	0.00251	< 0.002	0.00148*
	4/7/2023	N/A	N/A	N/A	0.00141*	N/A	N/A	N/A	N/A
	7/27/2023	0.00165*	0.00129*	0.00155*	0.00205	< 0.002	0.00243	0.00098*	0.00133*
	7/27/2023	N/A	N/A	N/A	0.00209	N/A	N/A	N/A	N/A
	5/22/2024	< 0.002	< 0.002	0.00157*	0.00134*	0.00199*	0.00166*	< 0.002	< 0.002
	5/22/2024	N/A	N/A	N/A	N/A	N/A	0.00173*	N/A	N/A
	7/30/2024	0.00141*	< 0.002	< 0.002	0.00173*	< 0.002	0.00239	< 0.002	< 0.002
	7/30/2024	N/A	N/A	N/A	0.00174*	N/A	N/A	N/A	N/A
Selenium, mg/L (CAS NO - 7782-49-2)	1/15/2015	N/A	0.05	N/A	N/A	N/A	N/A	N/A	N/A
	4/14/2015	< 0.01	0.05	< 0.01	0.02	< 0.01	0.02	< 0.01	< 0.01
	7/15/2015	N/A	0.05	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	0.18	0.05	< 0.01	0.02	< 0.01	0.12	< 0.01	0.31
	5/24/2016	< 0.01	0.06	< 0.01	0.01	< 0.01	0.04	< 0.01	0.01
	10/10/2016	< 0.01	0.05	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01
	4/11/2017	< 0.01	0.05	< 0.01	< 0.01	< 0.01	0.02	< 0.01	< 0.01
	10/18/2017	< 0.01	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01
	4/12/2018	< 0.005	0.0543	0.00189	0.00816	< 0.005	0.00477	< 0.005	0.0113
	8/2/2018	0.000969	0.0473	0.00263	0.00735	< 0.005	0.00476	< 0.005	0.0106
	4/9/2019	< 0.005	0.054	< 0.005	0.00273	< 0.005	0.0669	< 0.005	0.0106
	8/28/2019	< 0.005	0.049	0.0019	0.00261	< 0.005	0.0171	< 0.005	0.0103
	3/16/2020	< 0.005	0.0555	0.0012*	0.00286*	< 0.005	0.00743	< 0.005	0.0113
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0115
	7/28/2020	< 0.005	0.0555	< 0.005	0.00489*	< 0.005	0.0023*	< 0.005	0.0113
	7/28/2020	N/A	N/A	N/A	0.00574	N/A	N/A	N/A	N/A
	3/18/2021	< 0.005	0.054	0.00111*	0.00327*	< 0.005	0.00475*	< 0.005	0.0127
	3/18/2021	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/1/2021	< 0.005	0.0557	0.00171*	0.00266*	< 0.005	0.00666	< 0.005	0.0134
	9/1/2021	N/A	N/A	N/A	0.00302*	N/A	N/A	N/A	N/A
	6/29/2022	< 0.005	0.0548	< 0.005	0.00205*	< 0.005	0.0031*	< 0.005	0.0137
	6/29/2022	N/A	N/A	N/A	0.00198*	N/A	N/A	N/A	N/A
	8/16/2022	< 0.005	0.0555	0.00164*	0.00244*	< 0.005	0.00262*	< 0.005	0.0139
	8/16/2022	N/A	N/A	N/A	0.00194*	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry
Climax Molybdenum Industrial Landfill (56 SDP 06 80P)

Total Metals Constituents	Sample Date	MW-7 UPG	MW-18R UPG	MW-11 DNG	MW-15 DNG	MW-16 DNG	MW-17 DNG	MW-21 DNG	TW-2 DNG
Selenium, mg/L (CAS NO - 7782-49-2)	4/7/2023	0.00185*	0.058	0.00276*	0.00284*	< 0.005	0.00526	< 0.005	0.0143
	4/7/2023	N/A	N/A	N/A	0.0022*	N/A	N/A	N/A	N/A
	7/27/2023	< 0.005	0.0556	0.00175*	0.00323*	< 0.005	0.023	0.0134	0.0161
	7/27/2023	N/A	N/A	N/A	0.00328*	N/A	N/A	N/A	N/A
	5/22/2024	< 0.005	0.0516	0.00149*	0.00194*	< 0.005	0.022	0.00334*	0.0129
	5/22/2024	N/A	N/A	N/A	N/A	N/A	0.0167	N/A	N/A
	7/30/2024	< 0.005	0.0522	0.0021*	0.00318*	< 0.005	0.00246*	0.00649	0.0147
	7/30/2024	N/A	N/A	N/A	0.00344*	N/A	N/A	N/A	N/A
Sodium, mg/L (CAS NO - 7440-23-5)	1/15/2015	N/A	53	N/A	N/A	N/A	N/A	N/A	N/A
	4/14/2015	45	52	70	63	69	67	9.3	55
	7/15/2015	N/A	50	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	44	52	77	65	74	68	95	58
	5/24/2016	50	55	74	49	75	68	90	64
	10/10/2016	64	56	90	64	75	72	94	66
	4/11/2017	60	54	79	41	73	67	72	63
	10/18/2017	56	50	89	61	73	65	86	65
	4/12/2018	60.1	47.3	71.7	54.3	76.4	61.1	63.8	62.7
	8/2/2018	61.7	49.9	71.3	60.1	67.5	64.2	81.1	61.8
	4/9/2019	64	52.6	76.7	48.8	71.9	65.5	100	60.8
	8/28/2019	59.1	49.4	86.7	49.6	67.4	62.2	103	65.8
	3/16/2020	76.3	48.2	69.8	46.4	66.1	59.7	105	61.9
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	60
	7/28/2020	76.1	50.4	80.3	61.2	69.7	62.6	112	70.8
	7/28/2020	N/A	N/A	N/A	61.2	N/A	N/A	N/A	N/A
	3/18/2021	65.3	49.5	77.8	51.1	68.6	62.2	124	70.5
	3/18/2021	70	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/1/2021	72.8	49.8	86.4	57	73	62.3	120	73.5
	9/1/2021	N/A	N/A	N/A	50.4	N/A	N/A	N/A	N/A
	6/29/2022	84.2	53.6	81.4	54.1	72.6	65.9	118	86.2
	6/29/2022	N/A	N/A	N/A	53.2	N/A	N/A	N/A	N/A
	8/16/2022	71.6	51.9	88.2	51.1	77.7	64.1	115	80.8
	8/16/2022	N/A	N/A	N/A	51.6	N/A	N/A	N/A	N/A
	4/7/2023	75.2	53.6	86.6	38.4	70.9	61.4	104	79
	4/7/2023	N/A	N/A	N/A	39.6	N/A	N/A	N/A	N/A
	7/27/2023	69.6	51.3	85.6	53.5	76	62.8	99.4	84.7
	7/27/2023	N/A	N/A	N/A	52.9	N/A	N/A	N/A	N/A
	5/22/2024	63.7	51.4	82.8	36.1	73.2	61.8	91	80.7
	5/22/2024	N/A	N/A	N/A	N/A	N/A	62.9	N/A	N/A
	7/30/2024	58.7	48.6	82.7	50	70	60.2	90.8	81.7
	7/30/2024	N/A	N/A	N/A	52	N/A	N/A	N/A	N/A
Strontium, mg/L (CAS NO - 7440-24-6)	4/14/2015	0.62	0.35	0.63	0.44	0.57	0.7	1.2	0.32
	7/15/2015	N/A	0.3	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	0.62	0.31	0.65	0.45	0.62	0.73	1	0.32
	5/24/2016	0.58	0.31	0.64	0.4	0.54	0.61	0.99	0.32
	10/10/2016	0.73	0.32	0.65	0.44	0.55	0.65	1.1	0.32
	4/11/2017	0.64	0.31	0.62	0.33	0.57	0.63	0.99	0.33
	10/18/2017	0.68	0.3	0.62	0.39	0.54	0.7	1.1	0.34
	4/12/2018	0.652	0.293	0.606	0.391	0.615	0.596	0.776	0.362
	8/2/2018	0.795	0.34	0.651	0.441	0.7	0.691	1.12	0.381
	4/9/2019	0.752	0.37	0.711	0.499	0.727	0.693	1.34	0.412
	8/28/2019	0.668	0.303	0.689	0.457	0.632	0.601	1.25	0.369
	3/16/2020	0.597	0.325	0.643	0.458	0.648	0.711	1.29	0.386
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.393
	7/28/2020	0.584	0.336	0.589	0.481	0.628	0.651	1.34	0.432
	7/28/2020	N/A	N/A	N/A	0.507	N/A	N/A	N/A	N/A
	3/18/2021	0.591	0.326	0.664	0.458	0.654	0.71	1.2	0.423
	3/18/2021	0.588	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/1/2021	0.558	0.324	0.603	0.432	0.649	0.688	1.08	0.461
	9/1/2021	N/A	N/A	N/A	0.457	N/A	N/A	N/A	N/A
	6/29/2022	0.544	0.332	0.592	0.42	0.646	0.656	0.892	0.493
	6/29/2022	N/A	N/A	N/A	0.434	N/A	N/A	N/A	N/A
	8/16/2022	0.549	0.325	0.613	0.405	0.625	0.674	1.14	0.476
	8/16/2022	N/A	N/A	N/A	0.433	N/A	N/A	N/A	N/A
	4/7/2023	0.506	0.329	0.591	0.358	0.61	0.672	0.817	0.441
	4/7/2023	N/A	N/A	N/A	0.368	N/A	N/A	N/A	N/A
	7/27/2023	0.538	0.317	0.572	0.432	0.602	0.627	0.809	0.465
	7/27/2023	N/A	N/A	N/A	0.435	N/A	N/A	N/A	N/A
	5/22/2024	0.552	0.307	0.604	0.36	0.667	0.603	0.826	0.427
	5/22/2024	N/A	N/A	N/A	N/A	N/A	0.637	N/A	N/A
	7/30/2024	0.544	0.298	0.578	0.415	0.61	0.66	0.724	0.46
	7/30/2024	N/A	N/A	N/A	0.437	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry
Climax Molybdenum Industrial Landfill (56 SDP 06 80P)

Total Metals Constituents	Sample Date	MW-7 UPG	MW-18R UPG	MW-11 DNG	MW-15 DNG	MW-16 DNG	MW-17 DNG	MW-21 DNG	TW-2 DNG
Total Suspended Solids, mg/L (CAS NO - TSS)	4/14/2015	9.5	279	22	4	5	9	30	9
	10/10/2016	2	18	88	< 1	3	3	6	2
	4/11/2017	< 1	2	95	2	1	3	3	< 1
	10/18/2017	< 1	3	28	1	< 1	1	12	< 1
	4/12/2018	5	1.13	66	1.25	< 1.88	18	1	< 1.88
	8/2/2018	< 1.88	4.25	340	< 1.88	< 1.88	32.5	7.62	2.13
	4/9/2019	2	1	39.6	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88
	8/28/2019	1.13	0.75	71.4	< 1.88	0.75	2.63	2	0.875
	3/16/2020	2	3	59	< 1.88	< 5	5.88	0.75*	< 1.88
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1.88
	7/28/2020	7.25	10.5	22.1	< 1.88	2.75	4.5	< 1.88	< 1.88
	7/28/2020	N/A	N/A	N/A	< 1.88	N/A	N/A	N/A	N/A
	3/18/2021	5.63	12	86.5	< 1.88	< 1.88	1.25*	0.75*	< 1.88
	3/18/2021	< 1.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/1/2021	2.38	1.75*	57.9	< 1.88	< 1.88	1.88	< 1.88	< 1.88
	9/1/2021	N/A	N/A	N/A	< 1.88	N/A	N/A	N/A	N/A
	6/29/2022	9.67	0.75*	58	< 1.88	< 1.88	1.88	< 1.88	< 1.88
	6/29/2022	N/A	N/A	N/A	< 1.88	N/A	N/A	N/A	N/A
	8/16/2022	6	0.875*	74	< 1.88	< 1.88	1*	< 1.88	< 1.88
	8/16/2022	N/A	N/A	N/A	< 1.88	N/A	N/A	N/A	N/A
	4/7/2023	< 1.88	2.38	48	< 1.88	< 1.88	1.13*	< 1.88	< 1.88
	4/7/2023	N/A	N/A	N/A	< 1.88	N/A	N/A	N/A	N/A
	7/27/2023	3*	1.25*	80	< 5	< 1.88	1.13*	< 5	< 5
	7/27/2023	N/A	N/A	N/A	< 1.88	N/A	N/A	N/A	N/A
	5/22/2024	12.7	2	58	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88
	5/22/2024	N/A	N/A	N/A	N/A	N/A	< 1.88	N/A	N/A
	7/30/2024	6	1.63*	76.3	< 1.88	5.25	< 1.88	1.5*	1.75*
	7/30/2024	N/A	N/A	N/A	< 1.88	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.

SCS ENGINEERS

Summary of Groundwater Chemistry
Climax Molybdenum Industrial Landfill (56 SDP 06 80P)

Other Constituents	Sample Date	MW-7 UPG	MW-18R UPG	MW-11 DNG	MW-15 DNG	MW-16 DNG	MW-17 DNG	MW-21 DNG	TW-2 DNG
Chemical Oxygen Demand, mg/L (CAS NO - COD)	10/21/1992	N/A	N/A	16	5	17	16	N/A	N/A
	1/13/1993	< 1	N/A	1	< 1	4	1	N/A	N/A
	4/14/1993	< 1	N/A	3	5	3	3	N/A	N/A
	7/14/1993	5	N/A	9	2	4	9	N/A	N/A
	10/14/1993	5.9	N/A	16.8	0.9	5.5	N/A	N/A	N/A
	4/13/1994	12.8	N/A	16.3	5.2	14.3	13.8	N/A	N/A
	10/6/1994	8.1	N/A	14.8	4	10	10.9	N/A	N/A
	4/18/1995	4.6	N/A	5.4	1	1	1	N/A	N/A
	10/11/1995	10	N/A	14	6	12	6	N/A	N/A
	4/11/1996	5	4	9	3	8	3	N/A	N/A
	10/28/1996	6.3	3.1	14.4	4.5	2.4	2.7	N/A	N/A
	4/25/1997	15.2	1.1	14.7	7.9	12.8	3.5	N/A	N/A
	10/20/1997	9.6	2	12.2	7.2	9.8	2.2	N/A	N/A
	3/26/1998	11.6	8.1	12.4	3.7	19.9	8.9	N/A	N/A
	10/13/1998	5.6	< 0.4	8.7	4.1	< 0.4	0.4	N/A	N/A
	3/25/1999	9.2	3.8	8.5	2.5	8.1	2.5	N/A	N/A
	4/26/1999	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.6
	8/6/1999	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.3
	10/14/1999	6.3	2.8	0.78	6.3	5.3	1.2	N/A	1.8
	3/23/2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.4
	4/13/2000	< 1	< 1	2.3	< 1	< 1	< 1	N/A	< 1
	10/20/2000	2.9	< 1	8.8	< 1	2.9	1.3	N/A	< 1
	4/20/2001	6.2	4.5	8.9	4.9	5.8	3.2	N/A	3.2
	10/3/2001	5.1	2.1	10.7	1.3	5.6	1.3	N/A	3.9
	4/18/2002	3.4	< 1	3.6	< 1	3.1	< 1	N/A	1.2
	10/15/2002	6.2	1.3	9.5	1.3	2.3	< 1	N/A	2.3
	4/15/2003	6.2	3.6	9.9	4.4	6	2.8	N/A	3.6
	10/8/2003	8.23	0.8	9.29	2.9	1.2	1.2	N/A	5.5
	4/26/2004	11.4	3.7	6.2	4.1	4.5	22.1	N/A	5.4
	10/21/2004	7.2	< 1	1.5	< 1	< 1	< 1	N/A	< 1
	4/26/2005	5.1	1	3.5	1.8	6.3	< 1	N/A	1
	10/5/2005	3.8	10.5	6.2	1	3.2	< 3.6	N/A	2.8
	4/26/2006	8	2.7	9.2	2.3	6.8	5.6	N/A	3.9
	10/10/2006	3.6	< 1	13.5	1.2	2.2	< 1	N/A	< 1
	4/19/2007	8.7	1.3	10.2	0.9	3.9	< 1	N/A	8.7
	10/10/2007	6	< 1	12.6	5.1	< 1	< 1	N/A	2.5
	4/23/2008	16.7	< 1	15.9	4.3	3.1	2.7	N/A	9.5
	10/14/2008	16.7	2.3	10.3	9.8	< 7.6	5.5	N/A	9.5
	4/22/2009	13.8	3	11.5	6.7	9.6	1.5	N/A	< 1
	10/19/2009	14.3	17	10.9	4.4	10.5	9	N/A	< 5.6
	11/23/2009	N/A	N/A	N/A	N/A	N/A	N/A	8.3	N/A
	1/14/2010	N/A	N/A	N/A	N/A	N/A	N/A	11	N/A
	4/14/2010	10.4	0.6	< 1	< 1	10.7	9.4	1	2.8
	7/27/2010	N/A	N/A	N/A	N/A	N/A	N/A	13.1	N/A
	10/7/2010	13.9	< 3	12.8	< 3	9.6	4.7	10	3.9
	4/13/2011	13	3.6	15.3	< 3	9.2	< 3	12.6	5.8
	10/6/2011	11.5	4.3	31.1	4.3	8.7	< 3	13	3.8
	4/12/2012	16.6	< 3	28.5	5.4	< 3	5.4	13.2	< 3
	10/10/2012	10.8	3.2	32.9	3.6	< 3	< 3	13.2	3.2
	4/25/2013	17.1	< 3	32.7	5	< 3	< 3	12.3	< 3
	10/9/2013	12.6	< 3	36.2	< 3	< 3	< 3	4.1	< 3
	4/10/2014	21	< 10	39	< 10	< 10	< 10	10	< 10
	10/7/2014	11.8	< 3	22	< 3	< 3	< 3	6.3	10.4
	1/15/2015	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	4/14/2015	< 10	< 10	35	< 10	< 10	< 10	< 10	< 10
	7/15/2015	N/A	12	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	24	15	55	10	12	< 10	24	< 10
	5/24/2016	11	< 10	100	< 10	< 10	< 10	< 10	< 10
	10/10/2016	28	< 10	190	< 10	10	< 10	19	< 10
	4/11/2017	24	2	87	< 10	< 10	< 10	17	< 10
	10/18/2017	26	< 10	200	< 10	< 10	< 10	11	< 10
	4/12/2018	20	< 5	105	< 5	5.57	< 5	< 5	< 5
	8/2/2018	11.1	< 5	134	< 5	< 5	131	< 5	< 5
	4/9/2019	23.6	< 5	27.5	16.9	8.09	< 5	< 5	7.01
	8/28/2019	13.3	< 5	122	< 5	5.67	< 5	11	< 5
	3/16/2020	14.8	< 5	60.9	< 5	< 5	< 5	7.64	< 5
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5
	7/28/2020	18.6	< 5	23	< 5	< 5	13.8	21	5.58
	7/28/2020	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A
	3/18/2021	25.2	< 5	91.8	< 5	7.94	8.99	5.82	6.53
	3/18/2021	12.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry
Climax Molybdenum Industrial Landfill (56 SDP 06 80P)

Other Constituents	Sample Date	MW-7 UPG	MW-18R UPG	MW-11 DNG	MW-15 DNG	MW-16 DNG	MW-17 DNG	MW-21 DNG	TW-2 DNG
Chemical Oxygen Demand, mg/L (CAS NO - COD)	9/1/2021	15.6	< 5	108	< 5	< 5	< 5	6.07	< 5
	9/1/2021	N/A	N/A	N/A	5.39	N/A	N/A	N/A	N/A
	6/29/2022	15.9	< 5	78.2	9.95	10.4	7.08	9	18
	6/29/2022	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A
	8/16/2022	15.6	< 5	126	10.5	10.2	9.86	11.2	< 5
	8/16/2022	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A
	4/7/2023	16.2	< 5	59.5	12.2	9.13	5.46	13.2	< 5
	4/7/2023	N/A	N/A	N/A	9.81	N/A	N/A	N/A	N/A
	7/27/2023	20.3	6.31	118	9.72	8.36	6.31	9.38	8.02
	7/27/2023	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A
	5/22/2024	14.2	< 5	71.9	< 5	< 5	< 5	< 5	< 5
	5/22/2024	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A
	7/30/2024	17.2	< 5	141	7.4	8.08	5.03	11.1	5.37
	7/30/2024	N/A	N/A	N/A	9.77	N/A	N/A	N/A	N/A
Chloride, mg/L (CAS NO - 16887-00-6)	10/21/1992	42	42	60	24	27	60	N/A	N/A
	1/13/1993	33	33	60	20	27	60	N/A	N/A
	4/14/1993	25	25	60	17	23	60	N/A	N/A
	7/14/1993	27	27	65	16	22	65	N/A	N/A
	10/14/1993	16	N/A	52	10	14	N/A	N/A	N/A
	4/13/1994	17	N/A	61	7	15	15	N/A	N/A
	10/6/1994	29	N/A	86	12	38	21	N/A	N/A
	4/18/1995	24	N/A	70	14	30	21	N/A	N/A
	10/11/1995	25	N/A	79	9	23	13	N/A	N/A
	4/11/1996	22	10	56	9	13	12	N/A	N/A
	10/28/1996	31	23	96	19	33	28	N/A	N/A
	4/25/1997	27	10	67	8.7	19	14	N/A	N/A
	10/20/1997	23	12	52	10	16	17	N/A	N/A
	3/26/1998	21	11	61	8	26	15	N/A	N/A
	10/13/1998	21	14	84	12	21	20	N/A	N/A
	3/25/1999	18	6	46	5	8	9	N/A	N/A
	4/26/1999	N/A	6	N/A	N/A	N/A	N/A	N/A	3
	8/6/1999	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3
	10/14/1999	31	11	64	35	24	16	N/A	7
	3/23/2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4
	4/13/2000	33	13	55	10	15	18	N/A	4
	10/20/2000	26	14	58	12	15	21	N/A	4
	4/20/2001	27	15	65	12	15	20	N/A	4
	10/3/2001	40	15	68	11	16	20	N/A	4
	4/18/2002	20	13	56	10	14	17	N/A	3
	10/15/2002	28	12	39	10	12	16	N/A	7
	4/15/2003	32	11	59	8	11	16	N/A	4
	10/8/2003	22	12	39	7	11	15	N/A	4
	4/26/2004	32	17	82	7	13	24	N/A	3
	10/21/2004	56	12	67	9	23	17	N/A	7
	4/26/2005	17	9	38	4	7	11	N/A	3
	10/5/2005	32	14	58	9	13	18	N/A	4
	4/26/2006	11.4	5	34	2	3	7	N/A	1
	10/10/2006	28	11	56	8	8	14	N/A	5
	4/19/2007	38	13	52	9	13	15	N/A	7
	10/10/2007	30	14.4	63.7	9.4	10.4	17.2	N/A	5.4
	4/23/2008	4.8	10.4	48	6	8.3	12.3	N/A	3.7
	10/14/2008	62.6	16.6	114.8	11.6	22	27	N/A	6.5
	4/22/2009	72	24	159	16	53	30	N/A	8.3
	10/19/2009	33	25	82	8	18	16	N/A	7
	11/23/2009	N/A	N/A	N/A	N/A	N/A	N/A	11	N/A
	1/14/2010	N/A	N/A	N/A	N/A	N/A	N/A	119.4	N/A
	4/14/2010	28	18	18	11	7	19	69	4
	7/27/2010	N/A	N/A	N/A	N/A	N/A	N/A	101	N/A
	10/7/2010	34	17	73	9	24	16	101	2
	4/13/2011	39	17	74	8	20	16	123	3.3
	10/6/2011	33	16	72	11	14	18	103	4
	4/12/2012	30	17	103	22	16	18	88	6
	10/10/2012	33	14	95	8	12	15	92	6
	4/25/2013	37	14	94	6	13	15	68	5
	10/9/2013	40	14	104	7	13	16	69	4
	4/10/2014	28	17	116	10	15	19	69	6
	10/7/2014	27	15	73	8	11	15	69	9
	1/15/2015	N/A	7.8	N/A	N/A	N/A	N/A	N/A	N/A
	4/14/2015	6	8.7	30	3.7	6.4	9.2	60	4.1
	7/15/2015	N/A	7.4	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	5.9	7.9	26	3.6	5.7	8.9	41	3.9

SCS ENGINEERS

Summary of Groundwater Chemistry
Climax Molybdenum Industrial Landfill (56 SDP 06 80P)

Other Constituents	Sample Date	MW-7 UPG	MW-18R UPG	MW-11 DNG	MW-15 DNG	MW-16 DNG	MW-17 DNG	MW-21 DNG	TW-2 DNG
Chloride, mg/L (CAS NO - 16887-00-6)	5/24/2016	4.7	7.6	27	2	5.6	8.7	44	3.7
	10/10/2016	5.7	8	24	1.9	5.3	8.9	41	4.8
	4/11/2017	4.1	17	25	< 0.5	5.2	8.8	56	5
	10/18/2017	5.9	8.5	24	< 2	5	8.5	51	5.4
	4/12/2018	6.5	8.19	149	2.98	5.83	9	65.2	6.5
	8/2/2018	6.23	8.31	22.6	2.19	5.25	8.88	62.3	5.87
	4/9/2019	3.23	8	23.8	1.92	4.81	7.89	110	5.23
	8/28/2019	2.62	7.41	21.1	3.31	4.51	7.52	126	5.1
	3/16/2020	4.01*	8.08	21.1	5.87	5.53	9.32	123	5.91
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.54
	7/28/2020	3.46*	8.2	21.3	4.33*	5.54	8.16	201	7.36
	7/28/2020	N/A	N/A	N/A	5.45	N/A	N/A	N/A	N/A
	3/18/2021	4.49*	8.77	21.5	10.4	6.21	9.65	315	8.83
	3/18/2021	4.29*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/1/2021	2.26*	7.99	21.4	11.1	5.12	7.96	208	8.07
	9/1/2021	N/A	N/A	N/A	10.4	N/A	N/A	N/A	N/A
	6/29/2022	< 5	7.35	18.3	9.72	5.21	7.36	140	8.72
	6/29/2022	N/A	N/A	N/A	9.71	N/A	N/A	N/A	N/A
	8/16/2022	2.71*	8.35	20.6	10.9	5.7	< 5	152	10.6
	8/16/2022	N/A	N/A	N/A	10.8	N/A	N/A	N/A	N/A
	4/7/2023	3*	8.24	18.8	7.93	5.83	7.78	127	11.3
	4/7/2023	N/A	N/A	N/A	8.39	N/A	N/A	N/A	N/A
	7/27/2023	2.59*	9.01	22.7	11.2	5.5	8.74	109	13.3
	7/27/2023	N/A	N/A	N/A	11.1	N/A	N/A	N/A	N/A
	5/22/2024	2.3*	8.36	21	4.91*	5.61	8.06	71.8	12.3
	5/22/2024	N/A	N/A	N/A	N/A	N/A	8.03	N/A	N/A
	7/30/2024	2.81*	9.07	21.4	8.11	5.75	8.61	79.9	13.6
	7/30/2024	N/A	N/A	N/A	8.54	N/A	N/A	N/A	N/A
Nitrogen, Ammonia, mg/L (CAS NO - 7664-41-7)	10/21/1992	< 0.04	< 0.04	0.29	< 0.04	< 0.04	< 0.29	N/A	N/A
	1/13/1993	< 0.04	< 0.04	0.19	< 0.04	< 0.04	< 0.19	N/A	N/A
	4/14/1993	< 0.04	< 0.04	0.27	< 0.04	< 0.04	< 0.27	N/A	N/A
	7/14/1993	< 0.04	< 0.04	0.31	< 0.04	< 0.04	< 0.31	N/A	N/A
	10/14/1993	< 0.04	N/A	0.23	< 0.04	< 0.04	N/A	N/A	N/A
	4/13/1994	< 0.05	N/A	0.35	0.07	0.12	0.05	N/A	N/A
	10/6/1994	< 0.04	N/A	0.26	< 0.04	< 0.04	< 0.04	N/A	N/A
	4/18/1995	< 0.05	N/A	0.21	0.06	0.17	0.11	N/A	N/A
	10/11/1995	< 0.04	N/A	0.12	< 0.04	0.13	< 0.04	N/A	N/A
	4/11/1996	0.48	< 0.04	0.12	0.12	0.07	0.08	N/A	N/A
	10/28/1996	0.08	0.06	0.74	0.08	0.13	0.1	N/A	N/A
	4/25/1997	0.06	0.12	0.29	0.08	0.11	0.05	N/A	N/A
	10/20/1997	0.05	0.04	0.43	0.04	0.08	0.05	N/A	N/A
	3/26/1998	< 0.04	0.05	0.49	0.05	0.1	0.05	N/A	N/A
	10/13/1998	0.06	0.06	0.52	0.06	0.11	0.06	N/A	N/A
	3/25/1999	0.04	0.08	0.68	0.05	0.13	0.05	N/A	N/A
	4/26/1999	N/A	0.08	N/A	N/A	N/A	N/A	N/A	< 0.04
	8/6/1999	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.04
	10/14/1999	< 0.04	0.05	0.46	0.08	0.06	0.05	N/A	0.17
	3/23/2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.06
	4/13/2000	< 0.04	< 0.04	0.48	0.06	0.05	0.04	N/A	< 0.04
	10/20/2000	0.12	0.07	0.49	0.08	0.1	0.08	N/A	0.13
	4/20/2001	0.15	0.08	0.58	0.08	0.16	0.13	N/A	< 0.04
	10/3/2001	0.07	< 0.04	0.57	< 0.04	0.06	< 0.04	N/A	< 0.04
	4/18/2002	< 0.04	0.06	0.32	0.07	0.07	0.07	N/A	< 0.04
	10/15/2002	0.09	0.08	0.59	0.09	< 0.03	0.08	N/A	0.1
	4/15/2003	< 0.05	< 0.05	0.99	< 0.05	< 0.05	< 0.05	N/A	< 0.05
	10/8/2003	< 0.05	0.09	0.72	0.09	< 0.13	0.16	N/A	< 0.05
	4/26/2004	< 0.05	< 0.05	0.31	< 0.05	< 0.05	< 0.05	N/A	< 0.05
	10/21/2004	< 0.05	0.2	< 0.05	< 0.05	< 0.05	0.07	N/A	< 0.05
	4/26/2005	< 0.05	< 0.05	0.25	< 0.05	0.11	< 0.05	N/A	< 0.05
	10/5/2005	< 0.05	< 0.05	0.55	< 0.05	0.05	< 0.05	N/A	0.11
	4/26/2006	0.31	0.24	1.45	0.16	0.24	0.24	N/A	0.33
	10/10/2006	< 0.05	0.15	1.79	< 0.19	0.25	0.1	N/A	< 0.05
	4/19/2007	0.11	0.17	0.8	0.14	0.16	0.18	N/A	0.08
	10/10/2007	< 0.05	< 0.05	1.56	< 0.05	0.08	< 0.05	N/A	< 0.05
	4/23/2008	0.08	< 0.11	2.09	0.14	0.2	0.06	N/A	< 0.05
	10/14/2008	0.08	< 0.04	1.46	< 0.04	< 0.04	< 0.04	N/A	< 0.04
	4/22/2009	< 0.05	0.11	2.09	0.14	0.2	0.06	N/A	< 0.05
	10/19/2009	< 0.05	< 0.05	0.4	< 0.05	< 0.05	< 0.05	N/A	< 0.13
	11/23/2009	N/A	N/A	N/A	N/A	N/A	N/A	0.1	N/A
	1/14/2010	N/A	N/A	N/A	N/A	N/A	N/A	0.05	N/A
	4/14/2010	0.26	0.54	0.34	0.62	0.06	0.12	0.3	0.14

SCS ENGINEERS

Summary of Groundwater Chemistry
Climax Molybdenum Industrial Landfill (56 SDP 06 80P)

Other Constituents	Sample Date	MW-7 UPG	MW-18R UPG	MW-11 DNG	MW-15 DNG	MW-16 DNG	MW-17 DNG	MW-21 DNG	TW-2 DNG
Nitrogen, Ammonia, mg/L (CAS NO - 7664-41-7)	7/27/2010	N/A	N/A	N/A	N/A	N/A	N/A	0.04	N/A
	10/7/2010	0.12	0.31	1.75	0.26	0.57	0.31	0.32	0.09
	4/13/2011	< 0.05	< 0.05	1.36	0.12	0.18	< 0.05	< 0.05	< 0.05
	10/6/2011	< 0.05	0.65	2.5	< 0.05	0.18	0.23	0.06	< 0.05
	4/12/2012	0.1	0.17	3.51	0.14	0.24	0.14	0.07	0.06
	10/10/2012	< 0.05	0.12	3.18	0.08	0.18	0.08	0.07	< 0.05
	4/25/2013	0.17	0.18	2.53	0.21	0.23	0.18	0.17	0.06
	10/9/2013	0.13	0.14	3.17	0.15	0.22	0.13	0.14	< 0.05
	4/10/2014	< 0.04	0.08	2.03	0.06	< 0.04	0.06	0.13	< 0.04
	10/7/2014	0.13	0.15	1.97	0.15	0.15	0.15	0.21	0.12
	1/15/2015	N/A	0.27	N/A	N/A	N/A	N/A	N/A	N/A
	4/14/2015	< 0.05	< 0.05	2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	7/15/2015	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	< 0.05	< 0.05	1.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	5/24/2016	< 0.05	< 0.05	5.6	< 0.05	0.07	< 0.05	< 0.05	< 0.05
	10/10/2016	< 0.05	< 0.05	8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/11/2017	< 0.05	< 0.05	3.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	10/18/2017	< 0.05	< 0.05	7.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/12/2018	< 0.2	< 0.2	5.84	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	8/2/2018	< 0.2	< 0.2	6.4	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	4/9/2019	< 0.2	< 0.2	2.71	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	8/28/2019	< 0.2	< 0.2	6.64	< 0.2	< 0.2	< 0.2	0.153	< 0.2
	3/16/2020	< 0.2	< 0.2	4.33	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.2
	7/28/2020	< 0.2	< 0.2	0.983	< 0.2	< 0.2	1.19	< 0.2	< 0.2
	7/28/2020	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A	N/A
	3/18/2021	< 0.2	< 0.2	4.47	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	3/18/2021	< 0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/1/2021	< 0.2	< 0.2	5.83	< 0.2	< 0.2	0.0786*	0.0921*	< 0.2
	9/1/2021	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A	N/A
	6/29/2022	0.353	< 0.2	4.3	< 0.2	< 0.2	0.174*	< 0.2	< 0.2
	6/29/2022	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A	N/A
	8/16/2022	< 0.2	< 0.2	6.05	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	8/16/2022	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A	N/A
	4/7/2023	< 0.2	< 0.2	2.92	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	4/7/2023	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A	N/A
	7/27/2023	< 0.2	< 0.2	6.02	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	7/27/2023	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A	N/A
	5/22/2024	0.539	0.375*	4.34	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	5/22/2024	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A
	7/30/2024	0.131*	< 0.2	6.39	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	7/30/2024	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A	N/A
pH, S.U. (CAS NO - PH)	10/21/1992	7.12	7.12	6.67	7.24	6.78	6.67	N/A	N/A
	1/13/1993	7.19	7.19	6.68	7.05	6.76	6.68	N/A	N/A
	4/14/1993	7.13	7.13	6.68	7.02	6.65	6.68	N/A	N/A
	7/14/1993	7.18	7.18	6.65	6.95	6.66	6.65	N/A	N/A
	10/14/1993	6.98	N/A	6.7	6.95	6.7	N/A	N/A	N/A
	4/13/1994	7.24	N/A	6.68	7.08	6.65	7.06	N/A	N/A
	10/6/1994	7.1	N/A	6.64	6.98	6.6	7.12	N/A	N/A
	4/18/1995	7.12	N/A	6.91	7.13	6.76	7.32	N/A	N/A
	10/11/1995	7.37	N/A	6.81	7.46	6.58	7.26	N/A	N/A
	4/11/1996	8.42	7.38	8.08	8.2	7.85	7.4	N/A	N/A
	10/28/1996	6.97	6.9	6.63	6.92	6.43	6.96	N/A	N/A
	4/25/1997	7.03	7.03	6.67	7.03	6.59	6.94	N/A	N/A
	10/20/1997	6.92	7	6.65	6.99	6.54	7.06	N/A	N/A
	3/26/1998	6.98	7.27	6.83	7.16	6.74	7.25	N/A	N/A
	10/13/1998	7.06	7.04	6.69	6.99	6.55	7.11	N/A	N/A
	3/25/1999	6.93	7.09	6.67	7.01	6.64	7.15	N/A	N/A
	4/26/1999	N/A	7.09	N/A	N/A	N/A	N/A	N/A	7.1
	8/6/1999	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.47
	10/14/1999	6.97	7.04	6.73	6.5	6.58	7.09	N/A	7.06
	3/23/2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.29
	4/13/2000	6.92	6.92	6.69	6.69	6.63	7.02	N/A	7.05
	10/20/2000	6.91	7.08	6.79	7.05	6.55	7.23	N/A	7.1
	4/20/2001	7.05	7.3	6.93	7.34	6.84	7.37	N/A	7.5
	10/3/2001	6.89	7.15	6.88	7.14	6.65	7.07	N/A	7.1
	4/18/2002	6.73	7.02	6.75	7.05	6.73	7.11	N/A	7.09
	10/15/2002	6.75	6.95	6.6	6.95	6.56	7.05	N/A	7.06
	4/15/2003	6.78	7.02	6.59	7.01	6.57	7.07	N/A	7
	10/8/2003	6.56	6.72	6.45	6.74	6.36	6.88	N/A	6.96
	4/26/2004	6.83	7.17	6.79	7.13	6.74	7.19	N/A	7.28

SCS ENGINEERS

Summary of Groundwater Chemistry
Climax Molybdenum Industrial Landfill (56 SDP 06 80P)

Other Constituents	Sample Date	MW-7 UPG	MW-18R UPG	MW-11 DNG	MW-15 DNG	MW-16 DNG	MW-17 DNG	MW-21 DNG	TW-2 DNG
pH, S.U. (CAS NO - PH)	10/21/2004	6.68	7.03	6.73	7.07	6.56	7.14	N/A	7.15
	4/26/2005	6.77	7.07	6.73	7.08	6.66	7.02	N/A	7.09
	10/5/2005	6.82	7.08	6.73	7.05	6.64	7.11	N/A	7.14
	4/26/2006	6.95	7.17	6.85	7.2	6.87	7.34	N/A	7.95
	10/10/2006	6.7	6.92	6.57	6.89	6.52	6.94	N/A	6.96
	4/19/2007	6.87	6.9	6.67	7.06	6.59	7.12	N/A	7.17
	10/10/2007	6.58	7.13	6.7	7.1	6.58	7.22	N/A	7.13
	4/23/2008	6.82	7.07	6.74	7.04	6.65	7.08	N/A	7.16
	10/14/2008	6.77	7	6.61	7.01	6.69	7.15	N/A	7.16
	4/22/2009	6.58	6.92	6.46	6.9	6.65	6.9	N/A	6.95
	10/19/2009	6.77	6.64	6.53	7	6.64	6.74	N/A	6.96
	11/23/2009	N/A	N/A	N/A	N/A	N/A	N/A	6.82	N/A
	1/14/2010	N/A	N/A	N/A	N/A	N/A	N/A	6.44	N/A
	4/14/2010	7.24	7.38	7.08	7.31	7.28	7.64	7.14	7.6
	7/27/2010	N/A	N/A	N/A	N/A	N/A	N/A	6.71	N/A
	10/7/2010	6.77	7.1	6.51	7.04	6.46	7.17	6.55	7.13
	4/13/2011	6.71	6.96	6.54	7.09	6.44	7.02	6.41	7.11
	10/6/2011	6.61	7.12	6.36	6.92	6.35	7.03	6.47	6.95
	4/12/2012	6.4	6.84	6.39	6.71	6.35	6.83	6.36	6.85
	10/10/2012	6.63	6.91	6.43	6.78	6.47	6.91	6.32	6.9
	4/25/2013	6.48	6.78	6.46	6.72	6.42	6.95	6.58	6.91
	10/9/2013	6.69	7.06	6.77	7.06	6.71	7.09	6.8	6.99
	4/10/2014	6.69	7.15	6.61	6.96	6.57	7.03	6.7	7.06
	10/7/2014	6.84	7.17	6.71	7.12	6.6	7.16	6.63	7.13
	4/14/2015	6.73	7.03	6.45	6.89	6.48	7.18	6.5	7.18
	7/15/2015	N/A	6.87	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	6.78	7.16	6.52	7.18	6.58	7.08	6.61	7.1
	5/24/2016	6.96	7.7	6.59	7.39	6.61	7.33	6.91	7.94
	10/10/2016	6.63	7.11	6.39	7.18	6.43	7.14	6.52	7.09
	4/11/2017	6.89	7.19	6.61	7.38	6.67	7.23	6.9	7.54
	10/18/2017	6.83	7.16	6.64	7.28	6.62	7.38	6.69	7.25
	4/12/2018	6.96	7.19	6.77	7.36	6.76	7.44	6.97	7.35
	8/2/2018	7.32	7.09	6.84	7.22	6.8	7.11	7.48	7.96
	4/9/2019	6.46	6.82	6.43	6.94	6.39	6.73	6.45	7.03
	8/28/2019	6.55	7.04	6.43	7.02	6.51	6.94	6.49	7.06
	3/16/2020	6.66	6.9	6.52	6.96	6.47	7.03	6.54	7.15
	7/28/2020	6.6	6.83	6.22	6.87	6.37	6.87	6.34	6.54
	3/18/2021	6.86	7.11	6.67	7.22	6.65	7.14	6.74	7.28
	9/1/2021	6.62	6.93	6.4	6.94	6.36	7.04	6.46	6.93
	6/29/2022	6.66	6.83	6.3	6.93	6.3	6.79	6.54	6.96
	8/16/2022	6.61	6.88	6.36	7.04	6.46	6.88	6.48	6.9
	4/7/2023	6.7	6.92	6.48	6.92	6.39	6.99	6.67	7.17
	7/27/2023	6.65	6.91	6.42	6.98	6.37	6.9	6.54	6.92
	5/22/2024	6.67	6.92	6.5	6.94	6.24	6.9	6.55	6.95
	7/30/2024	6.69	6.86	6.54	6.95	6.5	7.11	6.6	6.96
Specific Conductance, umhos/cm (CAS NO - SC)	10/21/1992	900	900	950	900	1300	950	N/A	N/A
	1/13/1993	812	812	1064	1022	1434	1064	N/A	N/A
	4/14/1993	829	829	1072	1009	1418	1072	N/A	N/A
	7/14/1993	862	862	1104	998	1412	1104	N/A	N/A
	10/14/1993	837	N/A	1019	913	1283	N/A	N/A	N/A
	4/13/1994	886	N/A	1200	1013	1428	1115	N/A	N/A
	10/6/1994	787	N/A	1112	912	1273	1032	N/A	N/A
	4/18/1995	812	N/A	1160	908	1287	1123	N/A	N/A
	10/11/1995	1040	N/A	1330	1015	1434	1162	N/A	N/A
	4/11/1996	974	915	1285	1030	1417	1150	N/A	N/A
	10/28/1996	947	900	1388	1012	1415	1169	N/A	N/A
	4/25/1997	991	884	1371	1004	1403	1171	N/A	N/A
	10/20/1997	1040	882	1351	996	1421	1165	N/A	N/A
	3/26/1998	1029	881	1329	1006	1412	1174	N/A	N/A
	10/13/1998	1074	877	1365	1012	1450	1216	N/A	N/A
	3/25/1999	1061	881	1353	1008	1421	1209	N/A	N/A
	4/26/1999	N/A	881	N/A	N/A	N/A	N/A	N/A	856
	8/6/1999	N/A	N/A	N/A	N/A	N/A	N/A	N/A	868
	10/14/1999	964	777	1216	2470	1263	1077	N/A	765
	3/23/2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	842
	4/13/2000	1099	875	1330	1035	1400	1212	N/A	849
	10/20/2000	1141	875	1311	1000	1429	1210	N/A	846
	4/20/2001	1202	887	1287	1081	1407	1261	N/A	851
	10/3/2001	1233	888	1099	1020	1490	1326	N/A	852
	4/18/2002	1213	888	1317	1046	1442	1217	N/A	846
	10/15/2002	1230	895	1302	1025	1495	1230	N/A	855

SCS ENGINEERS

Summary of Groundwater Chemistry
Climax Molybdenum Industrial Landfill (56 SDP 06 80P)

Other Constituents	Sample Date	MW-7 UPG	MW-18R UPG	MW-11 DNG	MW-15 DNG	MW-16 DNG	MW-17 DNG	MW-21 DNG	TW-2 DNG
Specific Conductance, umhos/cm (CAS NO - SC)	4/15/2003	1158	889	1285	1000	1444	1217	N/A	843
	10/8/2003	1217	884	1299	1034	1451	1250	N/A	858
	4/26/2004	1200	889	1318	1041	1449	1250	N/A	855
	10/21/2004	1154	892	1365	1042	1465	1334	N/A	851
	4/26/2005	1138	891	1359	1026	1444	1258	N/A	856
	10/5/2005	993	800	1226	906	1275	1132	N/A	754
	4/26/2006	1039	790	2080	911	1273	1136	N/A	763
	10/10/2006	1104	910	1438	1008	1425	1456	N/A	845
	4/19/2007	1212	888	1379	986	1449	1281	N/A	840
	10/10/2007	1139	939	1416	990	1452	1246	N/A	849
	4/23/2008	1271	914	1397	1043	1480	1261	N/A	870
	10/14/2008	1236	922	1467	1017	1477	1288	N/A	867
	4/22/2009	1220	932	1555	1061	1578	1323	N/A	882
	10/19/2009	1101	2348	1632	1007	1550	1408	N/A	863
	11/23/2009	N/A	N/A	N/A	N/A	N/A	N/A	1468	N/A
	1/14/2010	N/A	N/A	N/A	N/A	N/A	N/A	3075	N/A
	4/14/2010	1130	1012	1612	972	1499	1262	3350	829
	7/27/2010	N/A	N/A	N/A	N/A	N/A	N/A	3200	N/A
	10/7/2010	1180	1002	1492	984	1554	1308	2918	836
	4/13/2011	1173	1595	1462	957	1526	1196	3162	823
	10/6/2011	1168	946	1389	966	1530	1363	2951	827
	4/12/2012	1205	966	1452	982	1501	1455	2653	824
	10/10/2012	1159	941	1469	971	1488	1322	2470	836
	4/25/2013	1235	951	1554	959	1516	1336	2086	841
	10/9/2013	1208	941	1482	966	1488	1360	2326	844
	4/10/2014	1245	953	1430	946	1497	1308	1836	830
	10/7/2014	1223	885	1492	962	1481	1353	2114	843
	4/14/2015	1166	882	1488	944.7	1453	1339	2311	808.6
	7/15/2015	N/A	869	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	1158	884	1524	959	1519	1393	2191	839
	5/24/2016	1094	823	1327	857	1337	1154	1782	770
	10/10/2016	1208	724	1301	905	1360	1101	194	745
	4/11/2017	1099	819	1288	548	1371	1127	1793	820
	10/18/2017	1227	835	1292	772	1313	1280	1885	887
	4/12/2018	1386	921	1432	984	1589	1434	1915	1036
	8/2/2018	1434	1000	1411	1011	1563	1431	2200	961
	4/9/2019	1233.4	860.1	1388.5	876.7	1451.7	1207	2416.2	916.2
	8/28/2019	1165	848	1220.6	882.3	1340.8	1148.4	2154.6	946.6
	3/16/2020	1204	883	1413	900	1490	1397	2672	971
	7/28/2020	1286.5	938	1582.9	1062.5	1578.8	1447.3	3179	1172.8
	3/18/2021	1212.4	897.7	1442.4	959.9	1532.9	1386.1	2898.6	1063.7
	9/1/2021	1189.5	913.4	1435.2	996.5	1530.2	1390.9	2705.6	1227.8
	6/29/2022	1128.9	878.2	1327.6	931.3	1463.3	1312.3	2190.6	1265.9
	8/16/2022	1137.9	890.4	1352.6	892.7	1492	1337.2	2487.5	1246.8
	4/7/2023	1041.1	827.1	1304.9	706.6	1417.5	1265.8	2007	1097.3
	7/27/2023	1120.8	882.7	1346.2	923.9	1490.1	1341.3	2115.9	1255.5
	5/22/2024	1237.5	945.8	1439.9	870.5	1619.2	1370.3	2108.6	1366.8
	7/30/2024	1109.2	850.2	1296	897.6	1493.2	1353.3	2009.4	1277.5
Sulfate, mg/L (CAS NO - 14808-79-8)	10/21/1992	N/A	N/A	101	117	346	101	N/A	N/A
	1/13/1993	40	N/A	67	72	246	67	N/A	N/A
	4/14/1993	40	N/A	70	71	262	70	N/A	N/A
	7/14/1993	40	N/A	70	71	262	70	N/A	N/A
	10/14/1993	43	N/A	78	77	252	N/A	N/A	N/A
	4/13/1994	47	N/A	98	86	299	208	N/A	N/A
	10/6/1994	45	N/A	108	101	236	96	N/A	N/A
	4/18/1995	43	N/A	116	77	230	285	N/A	N/A
	10/11/1995	46	N/A	257	79	214	196	N/A	N/A
	4/11/1996	44	46	121	77	218	191	N/A	N/A
	10/28/1996	41	38	109	67	170	179	N/A	N/A
	4/25/1997	44	49	137	80	224	49	N/A	N/A
	10/20/1997	44	50	125	90	234	275	N/A	N/A
	3/26/1998	50	73	128	121	267	325	N/A	N/A
	10/13/1998	66	56	93	83	195	229	N/A	N/A
	3/25/1999	88	55	221	190	569	572	N/A	N/A
	4/26/1999	N/A	N/A	N/A	N/A	N/A	N/A	N/A	53
	8/6/1999	N/A	N/A	N/A	N/A	N/A	N/A	N/A	45
	10/14/1999	32	44	81	83	245	240	N/A	33
	3/23/2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	46
	4/13/2000	45	60	108	102	263	225	N/A	48
	10/20/2000	40	52	96	93	341	302	N/A	48
	4/20/2001	40	54	88	126	330	330	N/A	50

SCS ENGINEERS

Summary of Groundwater Chemistry
Climax Molybdenum Industrial Landfill (56 SDP 06 80P)

Other Constituents	Sample Date	MW-7 UPG	MW-18R UPG	MW-11 DNG	MW-15 DNG	MW-16 DNG	MW-17 DNG	MW-21 DNG	TW-2 DNG
Sulfate, mg/L (CAS NO - 14808-79-8)	10/3/2001	36	57	92	159	346	319	N/A	47
	4/18/2002	39	54	95	118	388	320	N/A	48
	10/15/2002	39	51	65	119	340	290	N/A	42
	4/15/2003	44	60	44	55	390	327	N/A	56
	10/8/2003	39	52	84	100	345	310	N/A	51
	4/26/2004	32	119	102	114	298	328	N/A	46
	10/21/2004	52	61	93	85	292	272	N/A	55
	4/26/2005	38	43	114	112	304	178	N/A	45
	10/5/2005	34	53	109	103	429	306	N/A	48
	4/26/2006	62	51	86	131	333	320	N/A	43
	10/10/2006	38	59	115	124	330	325	N/A	50
	4/19/2007	40	55	118	90	323	326	N/A	47
	10/10/2007	42	58	95	94	319	281	301	54
	4/23/2008	40	54	115	104	341	260	360	52
	10/14/2008	36	54	165	109	350	286	474	48
	4/22/2009	41	53	148	101	433	300	N/A	50
	10/19/2009	46	884	184	35	317	317	N/A	64
	11/23/2009	N/A	N/A	N/A	N/A	N/A	N/A	442	N/A
	1/14/2010	N/A	N/A	N/A	N/A	N/A	N/A	1437	N/A
	4/14/2010	40	168	229	67	356	279	1510	57
	7/27/2010	N/A	N/A	N/A	N/A	N/A	N/A	1313	N/A
	10/7/2010	39	184	138	87	391	327	1224	55
	4/13/2011	28	226	190	122	407	289	1389	62
	10/6/2011	38	145	167	118	366	432	1316	60
	4/12/2012	45	159	157	128	433	427	986	62
	10/10/2012	40	77	166	91	434	355	986	52
	4/25/2013	48	77	194	74	323	276	1041	63
	10/9/2013	43	94	171	106	437	371	486	56
	4/10/2014	73	96	153	88	351	271	477	52
	10/7/2014	57	64	201	113	450	377	728	66
	1/15/2015	N/A	51	N/A	N/A	N/A	N/A	N/A	N/A
	4/14/2015	49	47	160	100	380	360	840	54
	7/15/2015	N/A	48	N/A	N/A	N/A	N/A	N/A	N/A
	10/13/2015	64	47	160	110	360	390	640	60
	5/24/2016	100	47	52	110	400	320	850	83
	10/10/2016	74	48	11	110	400	340	710	89
	4/11/2017	72	44	58	71	400	320	810	110
	10/18/2017	46	43	< 8	95	430	370	850	120
	4/12/2018	138	52.3	15.3	115	460	348	700	144
	8/2/2018	94.2	49.9	38.9	111	460	304	782	135
	4/9/2019	82.3	53.5	100	120	468	289	944	138
	8/28/2019	60.9	48.5	39	101	410	292	1050	144
	3/16/2020	78.7	49.9	67.3	113	403	323	969	157
	3/16/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	157
	7/28/2020	75	46.4	139	127	396	293	1070	229
	7/28/2020	N/A	N/A	N/A	119	N/A	N/A	N/A	N/A
	3/18/2021	84.7	48.5	72.1	123	441	325	874	216
	3/18/2021	81	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/1/2021	84.7	51.1	57.6	108	407	323	844	303
	9/1/2021	N/A	N/A	N/A	119	N/A	N/A	N/A	N/A
	6/29/2022	57	45.6	55.1	83.2	345	276	648	321
	6/29/2022	N/A	N/A	N/A	82	N/A	N/A	N/A	N/A
	8/16/2022	67.1	49.9	39.9	94.7	397	305	845	323
	8/16/2022	N/A	N/A	N/A	94.8	N/A	N/A	N/A	N/A
	4/7/2023	73.6	49.7	68.8	84.8	399	319	723	322
	4/7/2023	N/A	N/A	N/A	79	N/A	N/A	N/A	N/A
	7/27/2023	78	53.1	41	119	435	328	704	368
	7/27/2023	N/A	N/A	N/A	117	N/A	N/A	N/A	N/A
	5/22/2024	82.4	49.1	39.9	67.7	394	282	590	353
	5/22/2024	N/A	N/A	N/A	N/A	N/A	292	N/A	N/A
	7/30/2024	82	50.6	22.2	125	449	354	553	379
	7/30/2024	N/A	N/A	N/A	126	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.

Appendix D

Statistical Report

Attachment A

Trend Test (α=0.01)

Trend Test

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM Printed 9/25/2024, 4:05 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Arsenic (mg/L)	MW-7 (bg)	0.0001117	2	21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-11	0.0002345	2	21	No	8	0	0.01	NP
Cadmium (mg/L)	MW-7 (bg)	0.000002438	2	21	No	8	50	0.01	NP
Cadmium (mg/L)	MW-16	-0.0000298	-8	-21	No	8	25	0.01	NP
Cadmium (mg/L)	MW-21	0	-1	-21	No	8	50	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-7 (bg)	0.1819	1	21	No	8	0	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-11	9.34	4	21	No	8	0	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-15	1.562	9	21	No	8	25	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-16	-0.9411	-5	-21	No	8	25	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-17	-1.156	-9	-21	No	8	25	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-18R (bg)	0	3	21	No	8	87.5	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-21	1.538	8	21	No	8	12.5	0.01	NP
Chemical Oxygen Demand (mg/L)	TW-2	0	-2	-21	No	8	50	0.01	NP
Chloride (mg/L)	MW-11	0.1132	1	21	No	8	0	0.01	NP
Chloride (mg/L)	MW-15	-0.7492	-6	-21	No	8	0	0.01	NP
Chloride (mg/L)	MW-16	0.1215	4	21	No	8	0	0.01	NP
Chloride (mg/L)	MW-17	0.1272	2	21	No	8	12.5	0.01	NP
Chloride (mg/L)	MW-18R (bg)	0.1462	12	21	No	8	0	0.01	NP
Chloride (mg/L)	**MW-21**	**-47.26**	**-24**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
Chloride (mg/L)	**TW-2**	**1.651**	**22**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**
Iron (mg/L)	MW-7 (bg)	0.4516	8	21	No	8	0	0.01	NP
Iron (mg/L)	MW-11	-1.995	-6	-21	No	8	0	0.01	NP
Lithium (mg/L)	MW-7 (bg)	-0.0006618	-13	-21	No	8	0	0.01	NP
Lithium (mg/L)	MW-15	-0.0008817	-6	-21	No	8	0	0.01	NP
Lithium (mg/L)	MW-16	-0.002718	-14	-21	No	8	0	0.01	NP
Lithium (mg/L)	MW-17	0.0005128	2	21	No	8	0	0.01	NP
Lithium (mg/L)	MW-18R (bg)	0.0001174	9	21	No	8	0	0.01	NP
Lithium (mg/L)	MW-21	-0.001836	-17	-21	No	8	0	0.01	NP
Lithium (mg/L)	TW-2	0.00159	8	21	No	8	0	0.01	NP
Manganese (mg/L)	MW-7 (bg)	-0.04005	-5	-21	No	8	0	0.01	NP
Manganese (mg/L)	MW-11	0.2184	12	21	No	8	0	0.01	NP
Manganese (mg/L)	MW-16	-0.05981	-6	-21	No	8	0	0.01	NP
Manganese (mg/L)	MW-17	-0.1617	-6	-21	No	8	0	0.01	NP
Manganese (mg/L)	MW-18R (bg)	0	-11	-21	No	8	75	0.01	NP
Manganese (mg/L)	MW-21	-0.01351	-6	-21	No	8	0	0.01	NP
Molybdenum (mg/L)	MW-11	0.0001525	9	21	No	8	37.5	0.01	NP
Molybdenum (mg/L)	MW-15	-0.00006236	-4	-21	No	8	0	0.01	NP
Molybdenum (mg/L)	MW-17	-0.0001353	-12	-21	No	8	0	0.01	NP
Nitrogen, Ammonia (mg/L)	MW-7 (bg)	0	8	21	No	8	62.5	0.01	NP
Nitrogen, Ammonia (mg/L)	MW-11	0.183	6	21	No	8	0	0.01	NP
pH (S.U.)	MW-7 (bg)	0.009819	2	21	No	8	0	0.01	NP
pH (S.U.)	MW-11	0.04685	8	21	No	8	0	0.01	NP
pH (S.U.)	MW-15	-0.01273	-5	-21	No	8	0	0.01	NP
pH (S.U.)	MW-16	-0.04429	-4	-21	No	8	0	0.01	NP
pH (S.U.)	MW-17	-0.004451	-1	-21	No	8	0	0.01	NP
pH (S.U.)	MW-18R (bg)	-0.01728	-9	-21	No	8	0	0.01	NP
pH (S.U.)	MW-21	0.01654	5	21	No	8	0	0.01	NP
pH (S.U.)	TW-2	-0.005263	-3	-21	No	8	0	0.01	NP
Selenium (mg/L)	MW-17	0.0000832	0	21	No	8	0	0.01	NP
Selenium (mg/L)	MW-18R (bg)	-0.0003717	-4	-21	No	8	0	0.01	NP

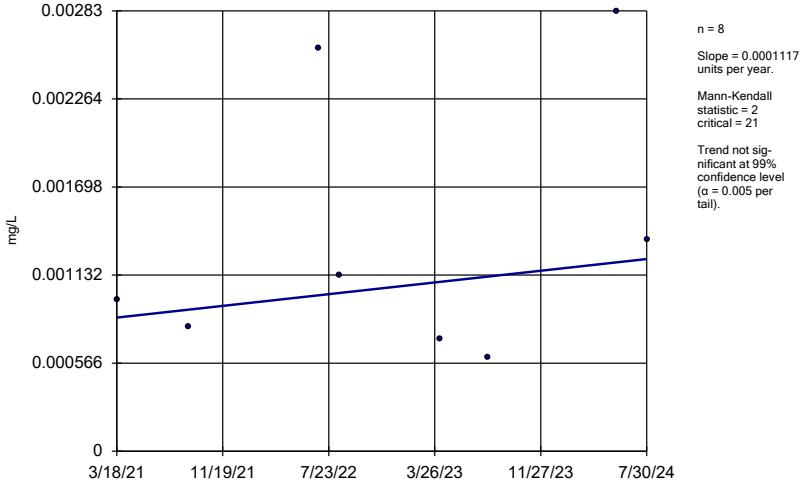
Trend Test

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM Printed 9/25/2024, 4:05 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Selenium (mg/L)	MW-21	0.0003754	14	21	No	8	62.5	0.01	NP
Selenium (mg/L)	TW-2	0.0005785	16	21	No	8	0	0.01	NP
Sodium (mg/L)	MW-7 (bg)	-3.906	-12	-21	No	8	0	0.01	NP
Sodium (mg/L)	MW-11	-0.1478	0	21	No	8	0	0.01	NP
Sodium (mg/L)	MW-15	-1.098	-12	-21	No	8	0	0.01	NP
Sodium (mg/L)	MW-16	0.1947	2	21	No	8	0	0.01	NP
Sodium (mg/L)	MW-17	-0.5785	-6	-21	No	8	0	0.01	NP
Sodium (mg/L)	MW-18R (bg)	-0.1335	-1	-21	No	8	0	0.01	NP
Sodium (mg/L)	**MW-21**	**-10.4**	**-28**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
Sodium (mg/L)	TW-2	3.011	10	21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-7 (bg)	-22.83	-10	-21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-11	-29.16	-12	-21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-15	-27.06	-14	-21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-16	-3.956	-2	-21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-17	-6.266	-2	-21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-18R (bg)	-10.78	-6	-21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-21	-241.7	-20	-21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	TW-2	33.98	16	21	No	8	0	0.01	NP
Strontium (mg/L)	MW-7 (bg)	-0.009966	-11	-21	No	8	0	0.01	NP
Strontium (mg/L)	MW-11	-0.01482	-14	-21	No	8	0	0.01	NP
Strontium (mg/L)	MW-15	-0.0227	-16	-21	No	8	0	0.01	NP
Strontium (mg/L)	MW-16	-0.01532	-13	-21	No	8	0	0.01	NP
Strontium (mg/L)	MW-17	-0.01873	-18	-21	No	8	0	0.01	NP
Strontium (mg/L)	MW-18R (bg)	-0.008386	-16	-21	No	8	0	0.01	NP
Strontium (mg/L)	MW-21	-0.1199	-20	-21	No	8	0	0.01	NP
Strontium (mg/L)	TW-2	-0.002645	-2	-21	No	8	0	0.01	NP
Sulfate (mg/L)	MW-7 (bg)	4	2	21	No	8	0	0.01	NP
Sulfate (mg/L)	MW-11	-12.63	-19	-21	No	8	0	0.01	NP
Sulfate (mg/L)	MW-15	-4.984	-4	-21	No	8	0	0.01	NP
Sulfate (mg/L)	MW-16	2.747	2	21	No	8	0	0.01	NP
Sulfate (mg/L)	MW-17	4.212	4	21	No	8	0	0.01	NP
Sulfate (mg/L)	MW-18R (bg)	0.6036	6	21	No	8	0	0.01	NP
Sulfate (mg/L)	MW-21	-91.28	-20	-21	No	8	0	0.01	NP
Sulfate (mg/L)	**TW-2**	**28.2**	**24**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**

Sen's Slope Estimator

MW-7 (bg)



n = 8

Slope = 0.0001117 units per year.

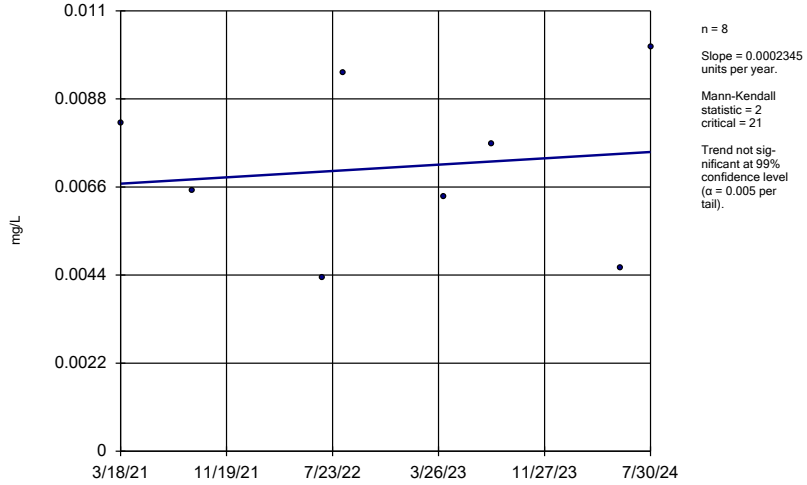
Mann-Kendall statistic = 2
critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 9/25/2024 3:59 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-11



n = 8

Slope = 0.0002345 units per year.

Mann-Kendall statistic = 2
critical = 21

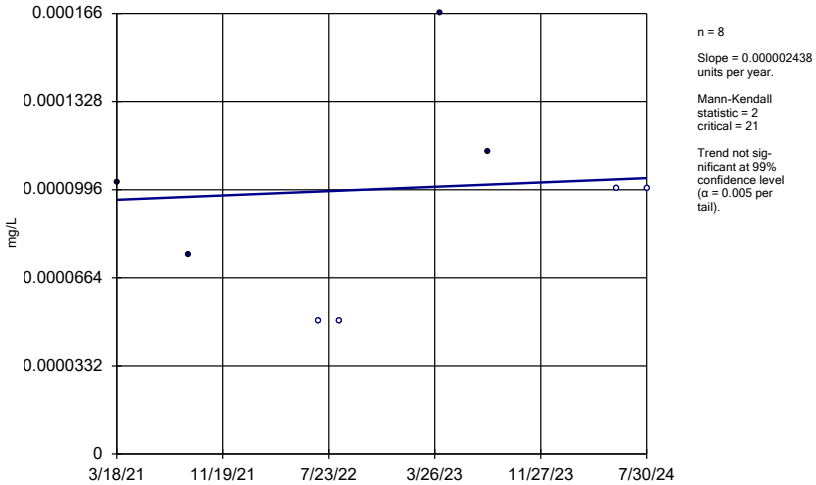
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 8

Slope = 0.000002438 units per year.

Mann-Kendall statistic = 2
critical = 21

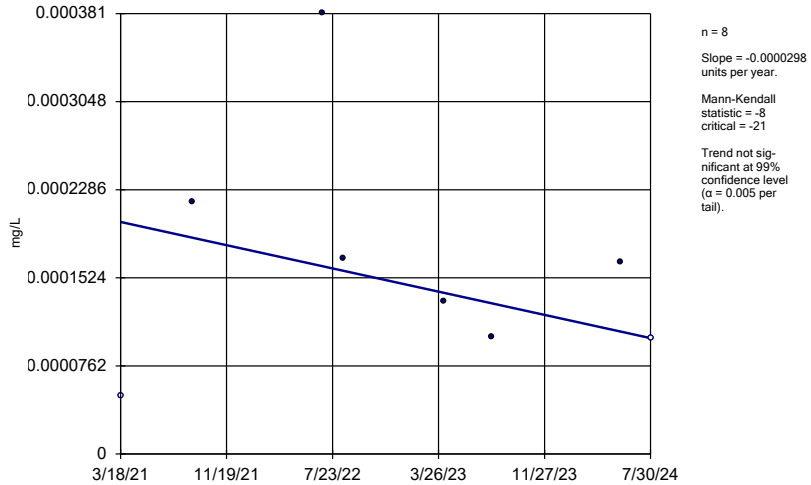
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 8

Slope = -0.0000298 units per year.

Mann-Kendall statistic = -8
critical = -21

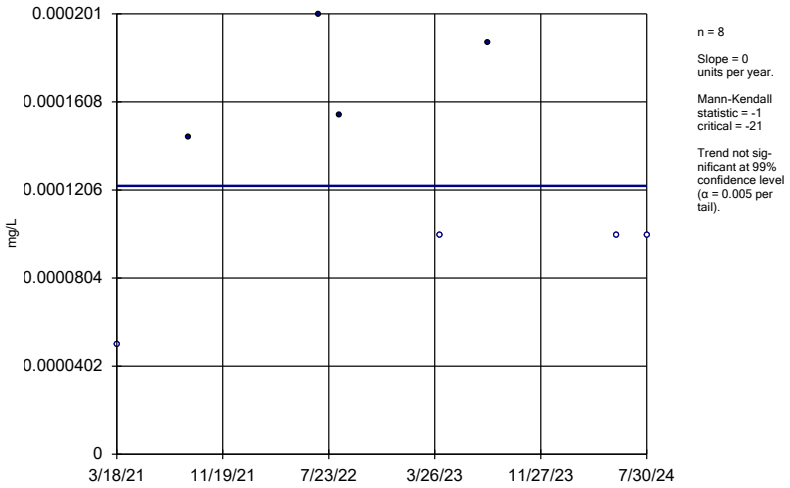
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

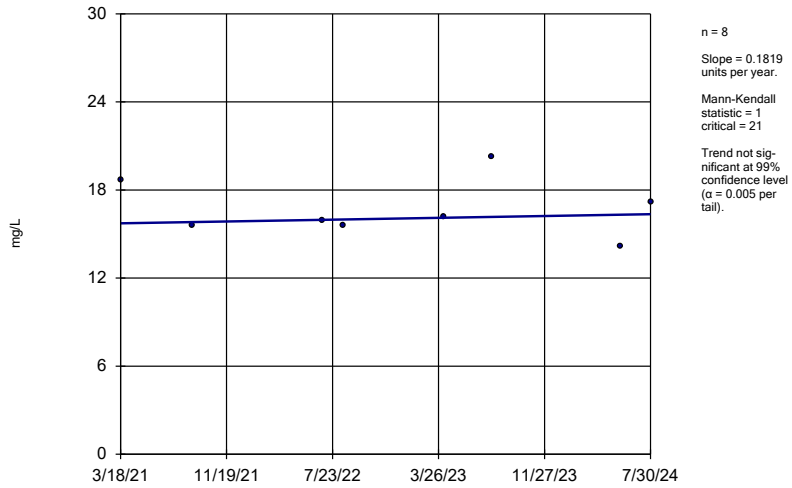
MW-21



Constituent: Cadmium Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

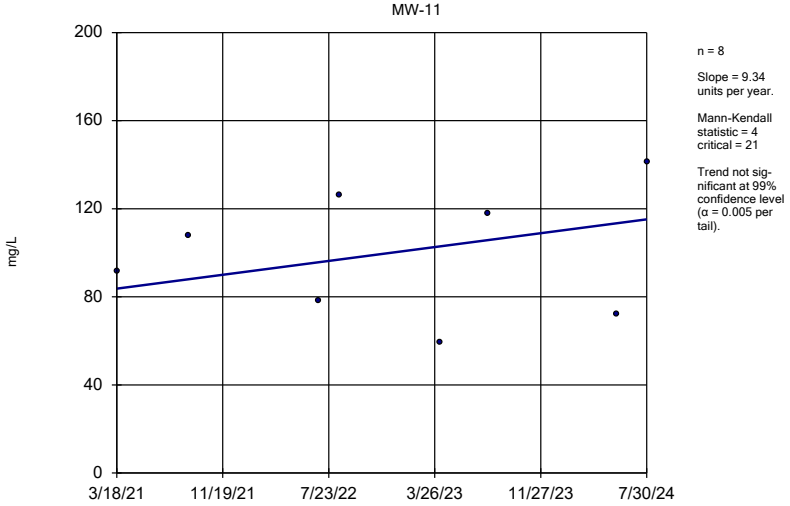
MW-7 (bg)



Constituent: Chemical Oxygen Demand Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kend
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-11

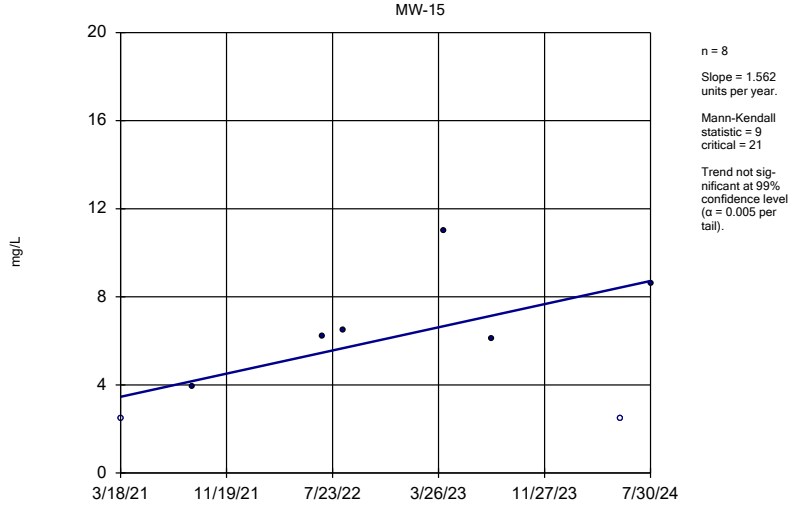


Constituent: Chemical Oxygen Demand Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kend
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15

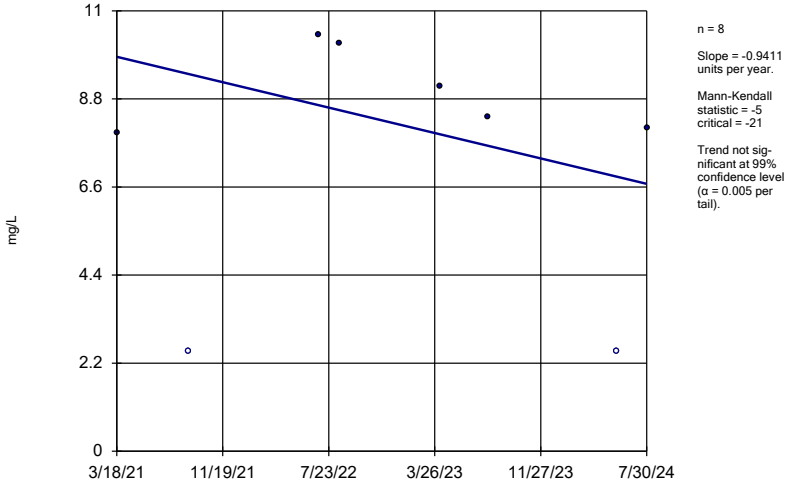


Constituent: Chemical Oxygen Demand Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kend
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 8

Slope = -0.9411 units per year.

Mann-Kendall statistic = -5
critical = -21

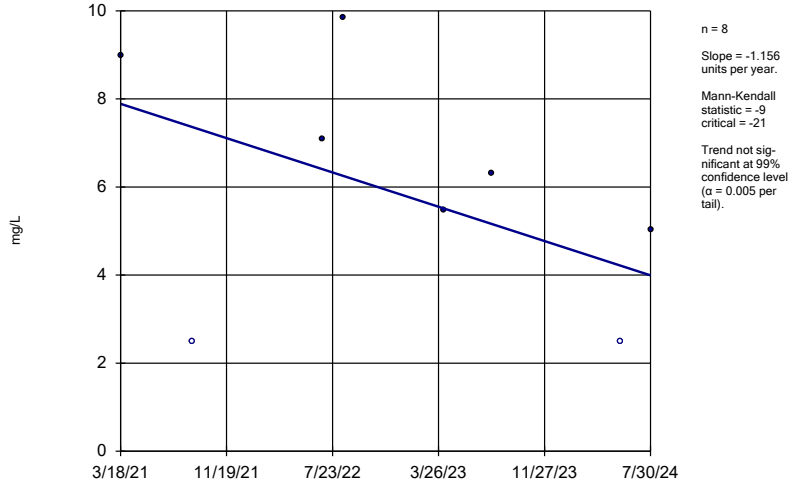
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chemical Oxygen Demand Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kend
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-17



n = 8

Slope = -1.156 units per year.

Mann-Kendall statistic = -9
critical = -21

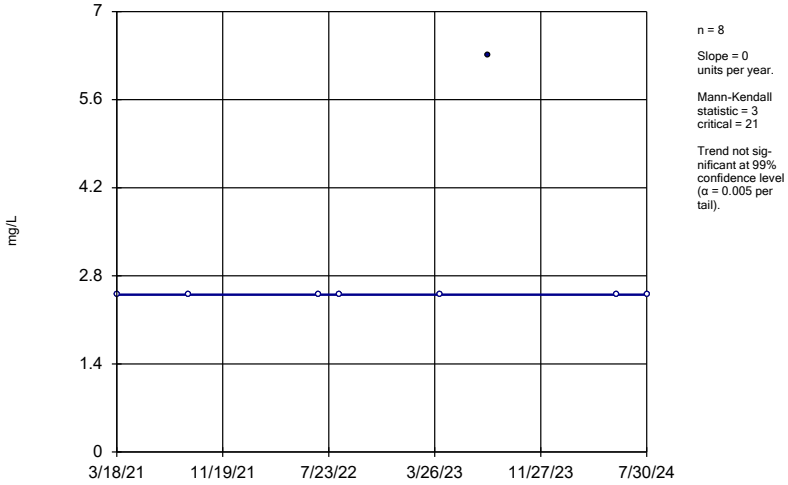
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chemical Oxygen Demand Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kend
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18R (bg)



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 21

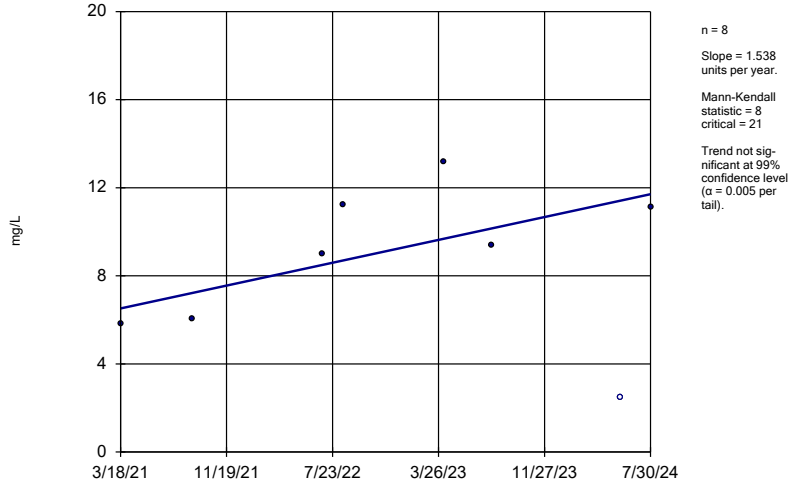
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chemical Oxygen Demand Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kend
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 8

Slope = 1.538 units per year.

Mann-Kendall statistic = 8
critical = 21

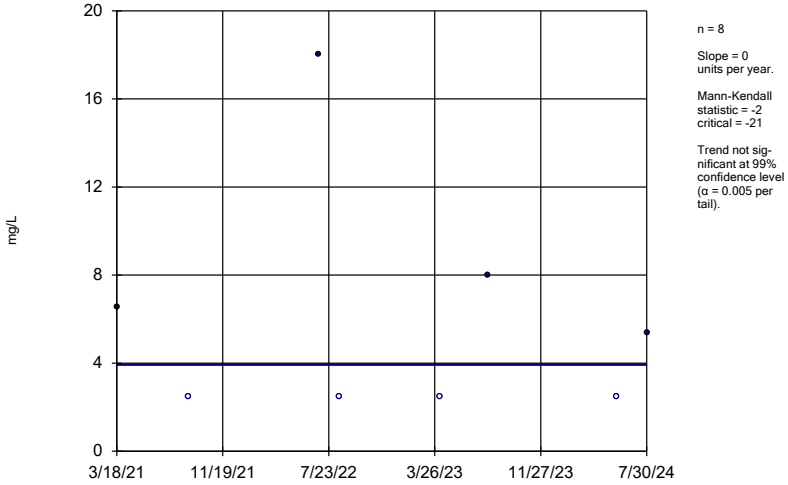
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chemical Oxygen Demand Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kend
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

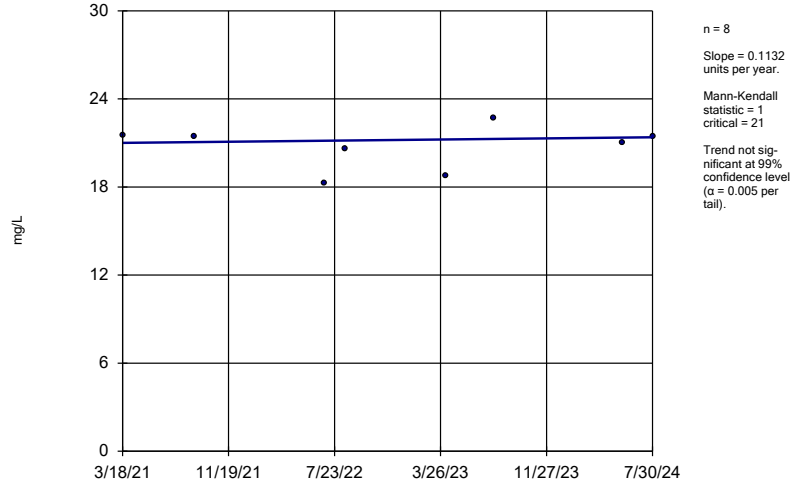
TW-2



Constituent: Chemical Oxygen Demand Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kend
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

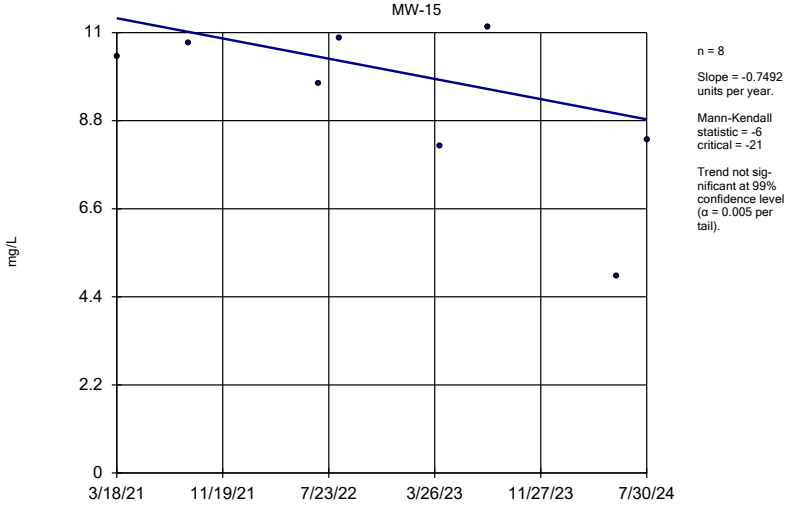
MW-11



Constituent: Chloride Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

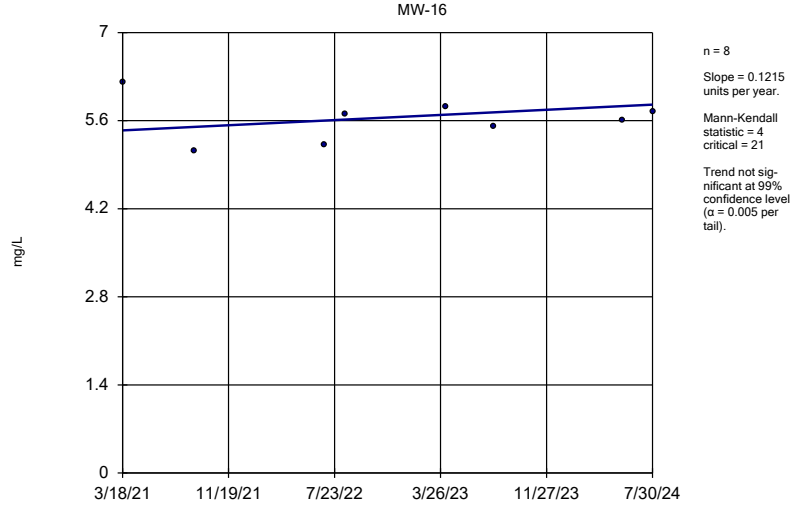
MW-15



Constituent: Chloride Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-16

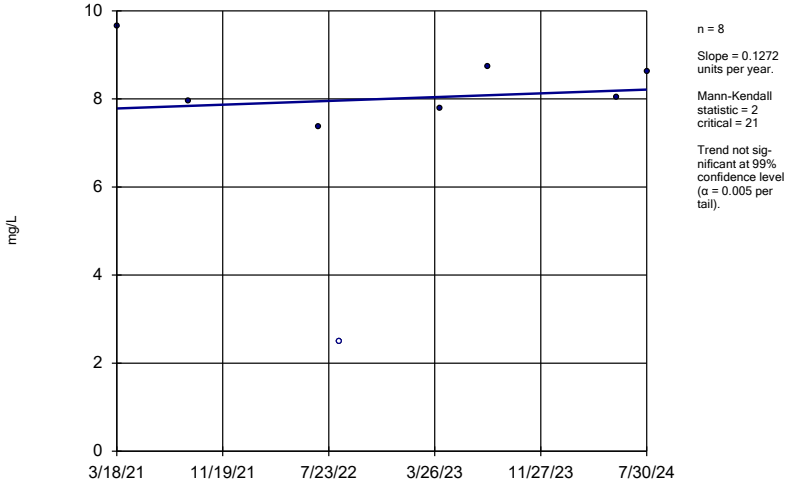


Constituent: Chloride Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-17

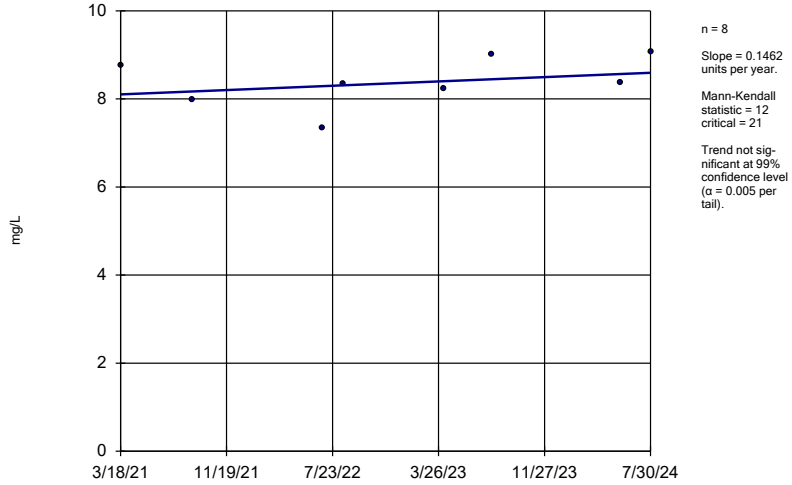


Constituent: Chloride Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-18R (bg)

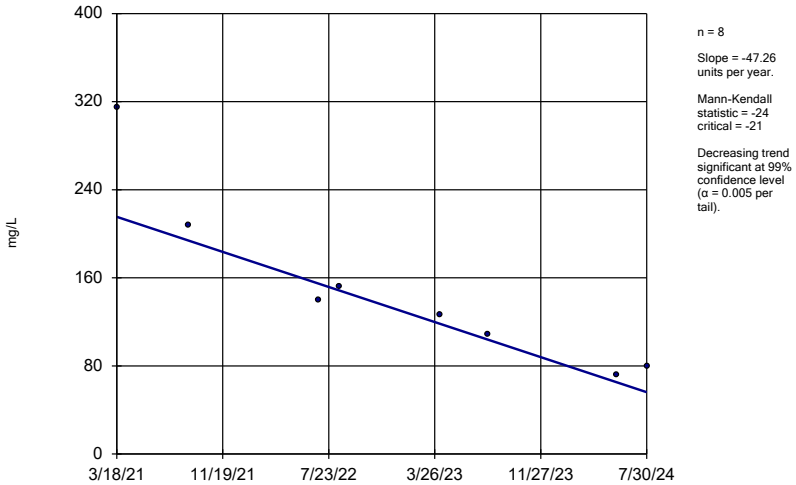


Constituent: Chloride Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-21

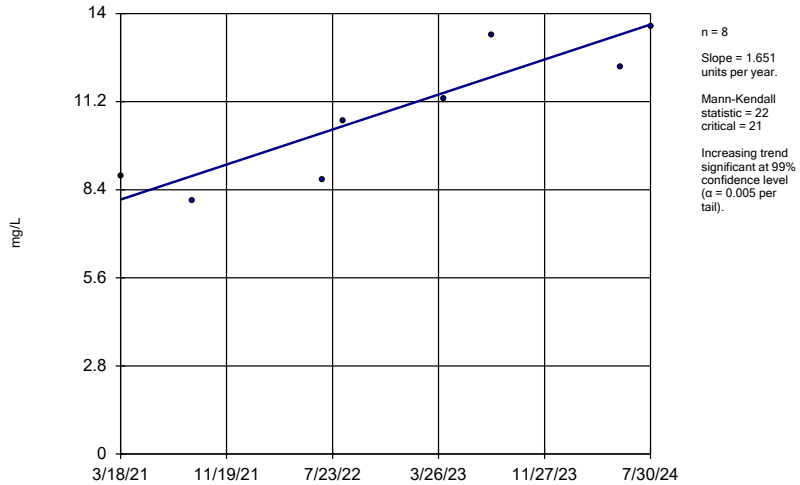


Constituent: Chloride Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

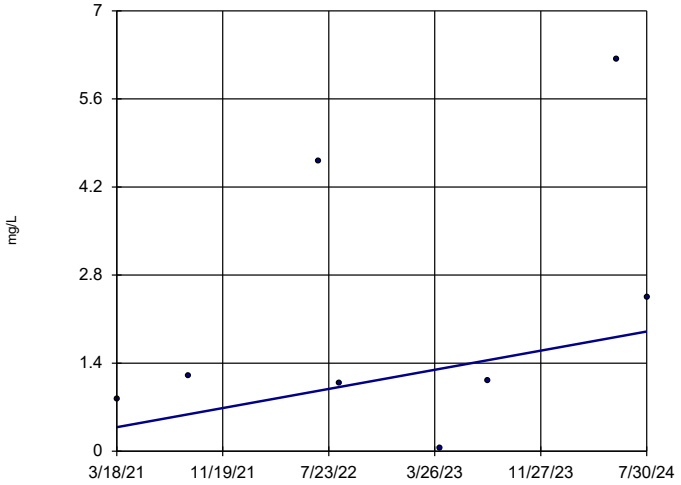
TW-2



Constituent: Chloride Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-7 (bg)



n = 8

Slope = 0.4516 units per year.

Mann-Kendall statistic = 8
critical = 21

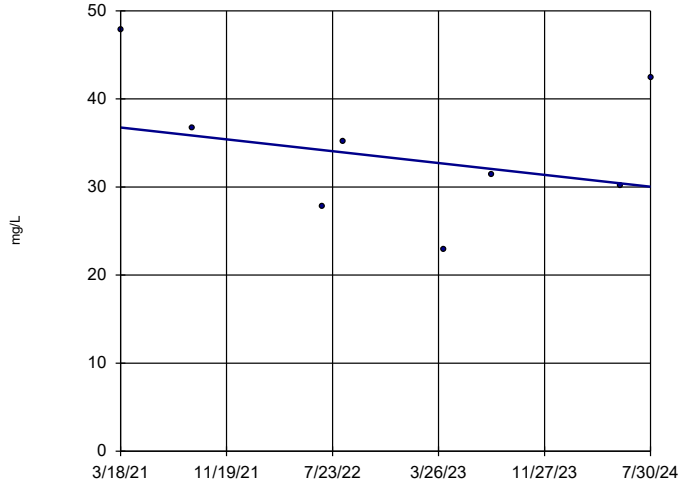
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Iron Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-11



n = 8

Slope = -1.995 units per year.

Mann-Kendall statistic = -6
critical = -21

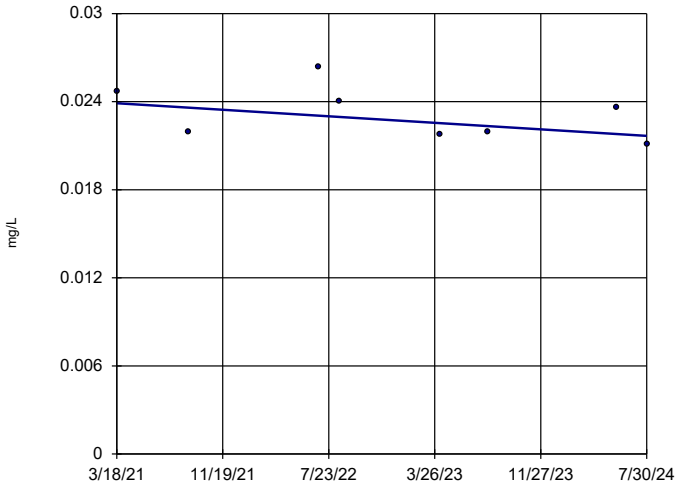
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Iron Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-7 (bg)



n = 8

Slope = -0.0006618 units per year.

Mann-Kendall statistic = -13
critical = -21

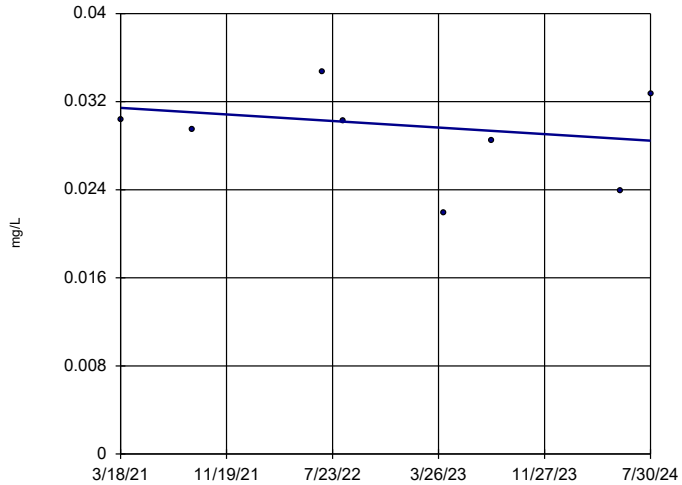
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-15



n = 8

Slope = -0.0008817 units per year.

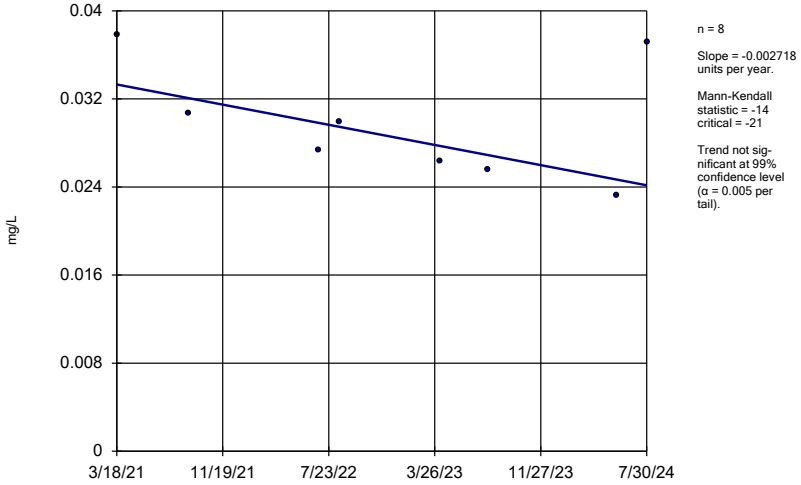
Mann-Kendall statistic = -6
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-16



n = 8

Slope = -0.002718 units per year.

Mann-Kendall statistic = -14 critical = -21

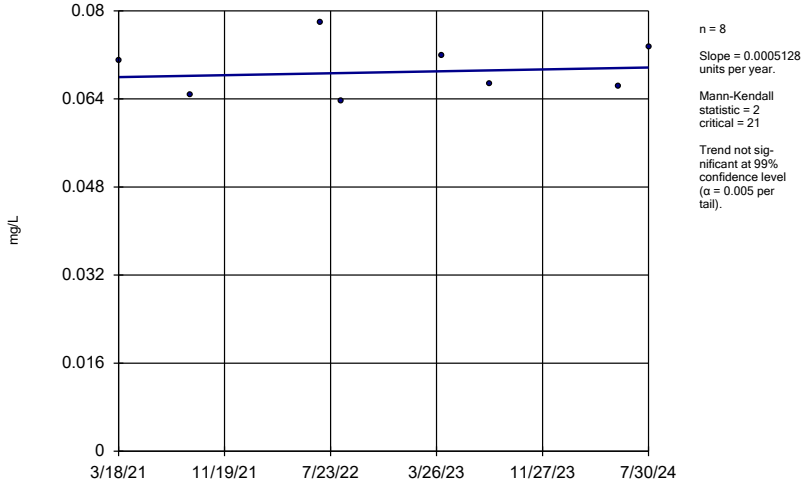
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-17



n = 8

Slope = 0.0005128 units per year.

Mann-Kendall statistic = 2 critical = 21

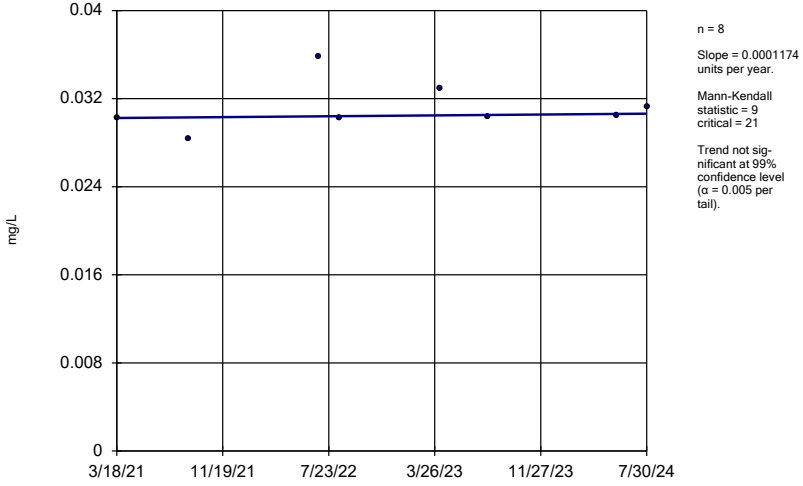
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-18R (bg)



n = 8

Slope = 0.0001174 units per year.

Mann-Kendall statistic = 9 critical = 21

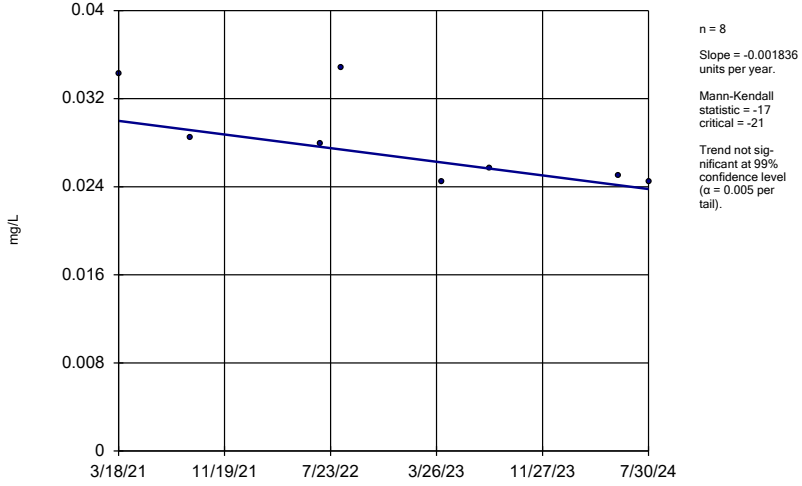
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-21



n = 8

Slope = -0.001836 units per year.

Mann-Kendall statistic = -17 critical = -21

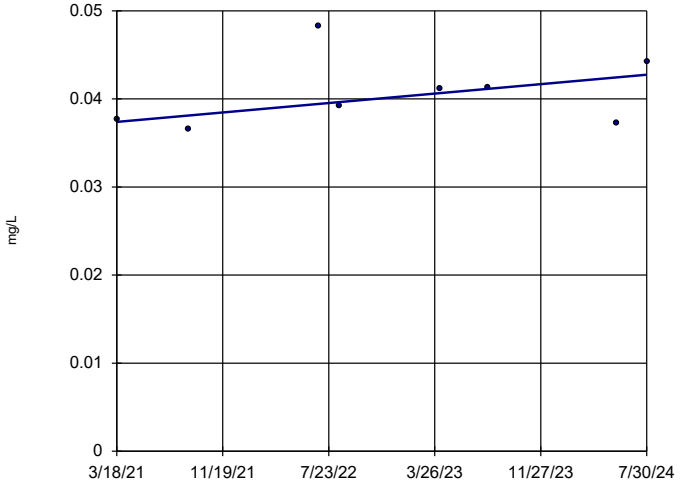
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

TW-2



n = 8

Slope = 0.00159 units per year.

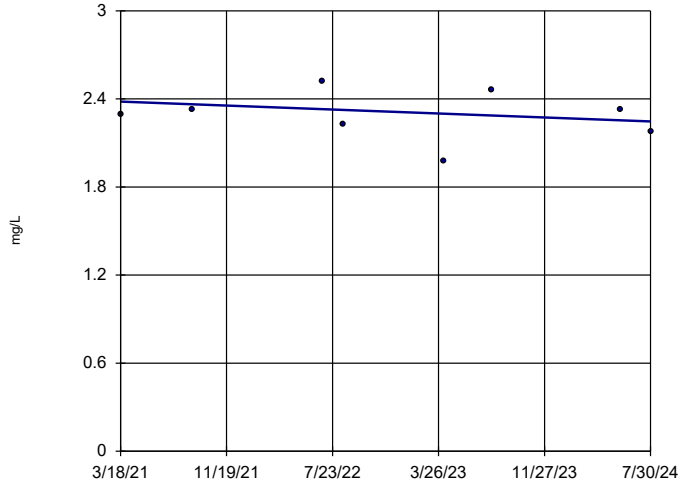
Mann-Kendall statistic = 8 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lithium Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-7 (bg)



n = 8

Slope = -0.04005 units per year.

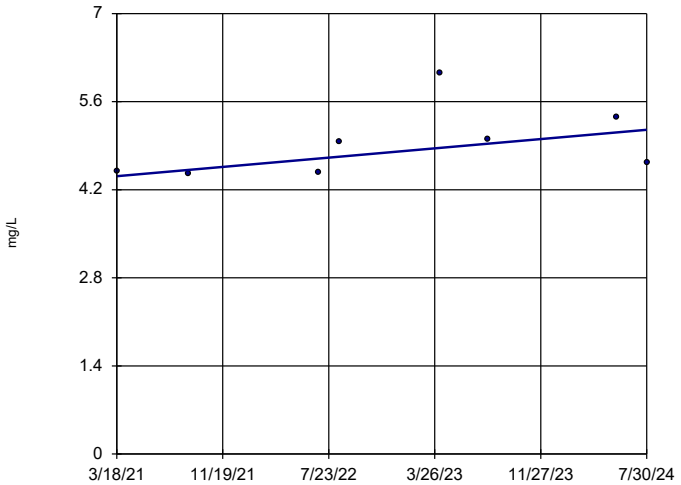
Mann-Kendall statistic = -5 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Manganese Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-11



n = 8

Slope = 0.2184 units per year.

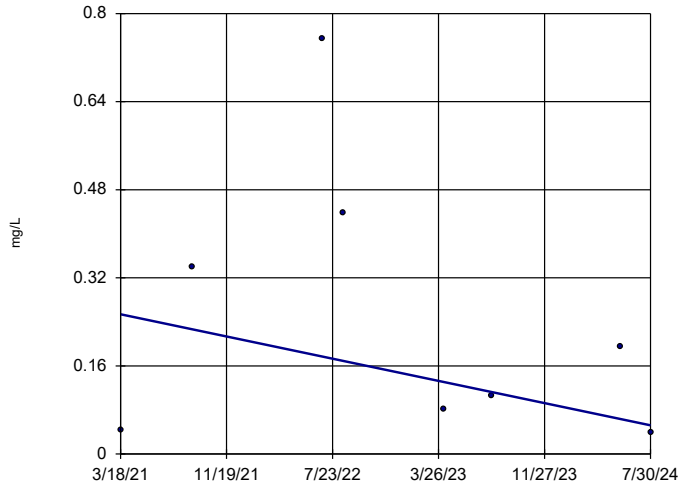
Mann-Kendall statistic = 12 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Manganese Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-16



n = 8

Slope = -0.05981 units per year.

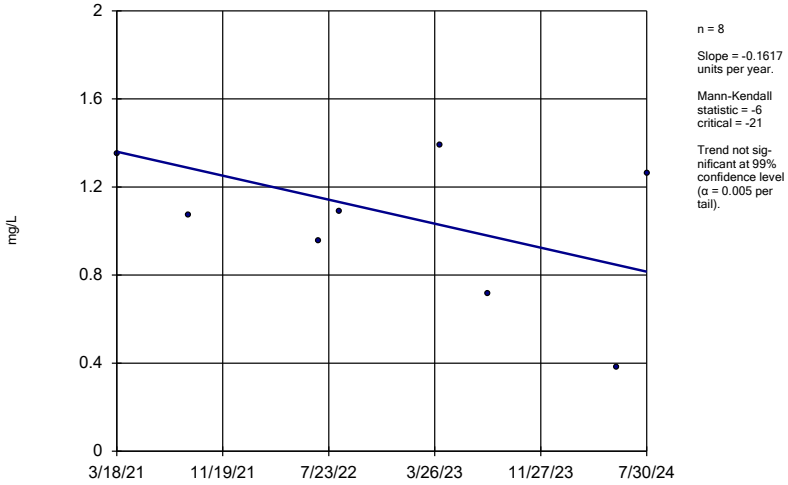
Mann-Kendall statistic = -6 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Manganese Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-17

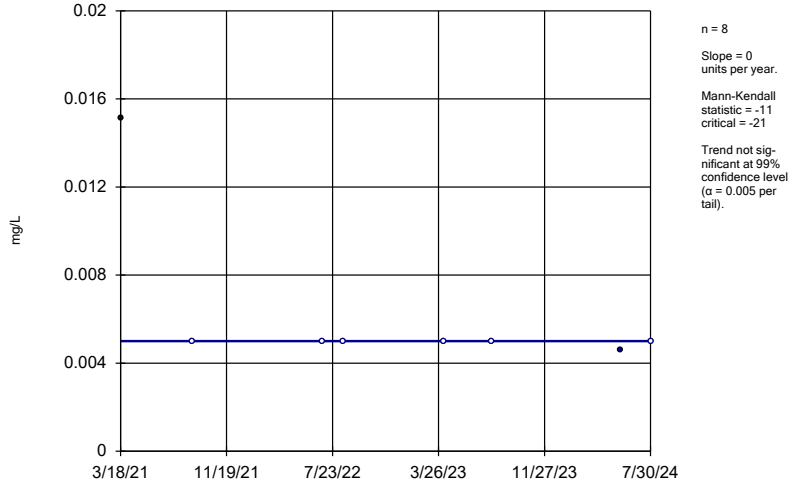


Constituent: Manganese Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

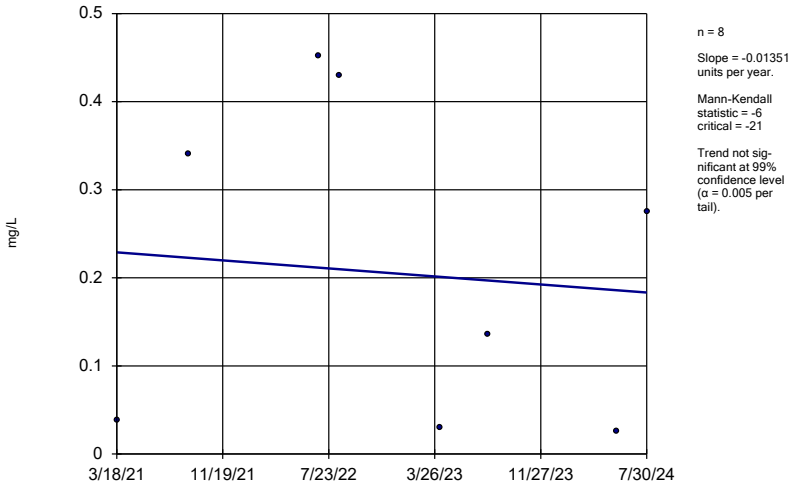
MW-18R (bg)



Constituent: Manganese Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-21

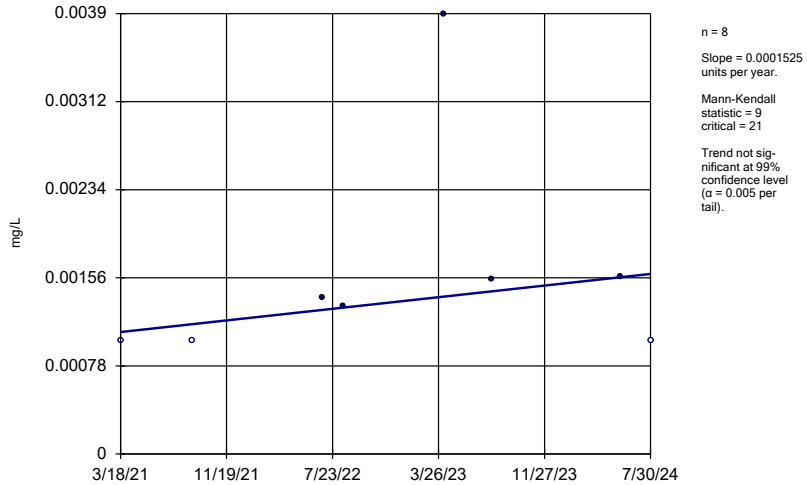


Constituent: Manganese Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

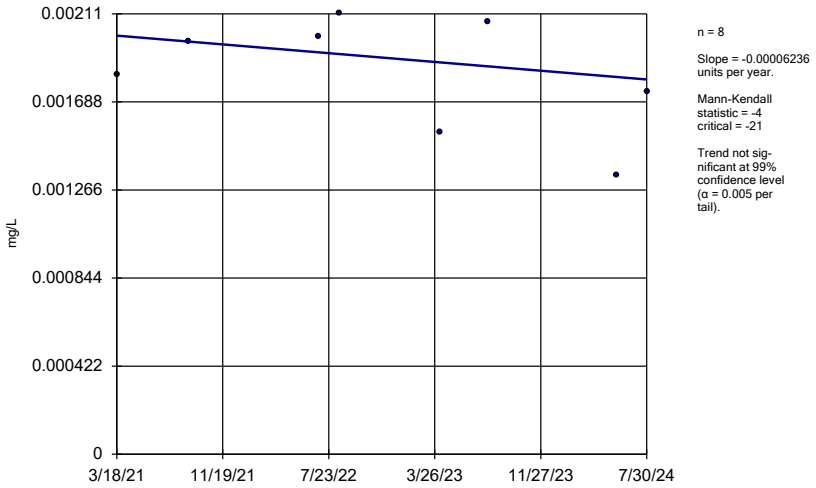
MW-11



Constituent: Molybdenum Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

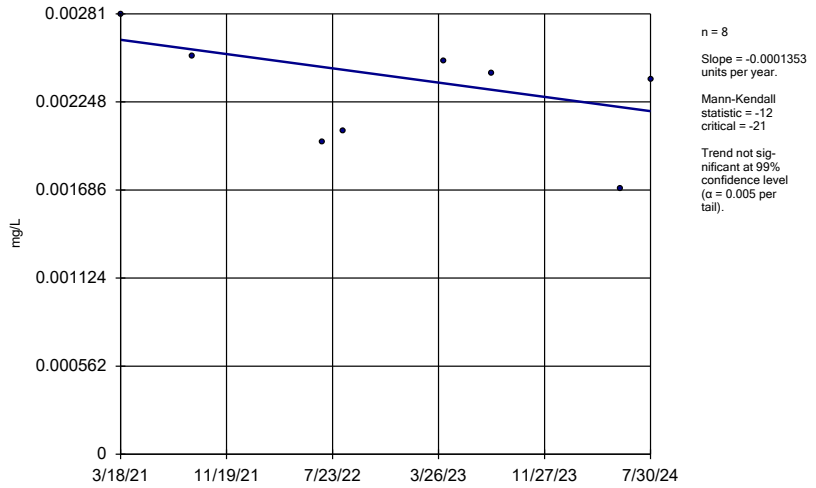
MW-15



Constituent: Molybdenum Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-17

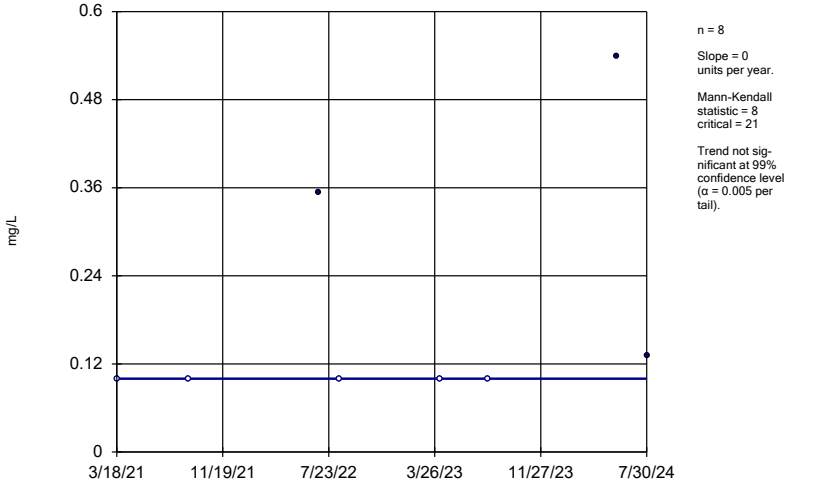


Constituent: Molybdenum Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

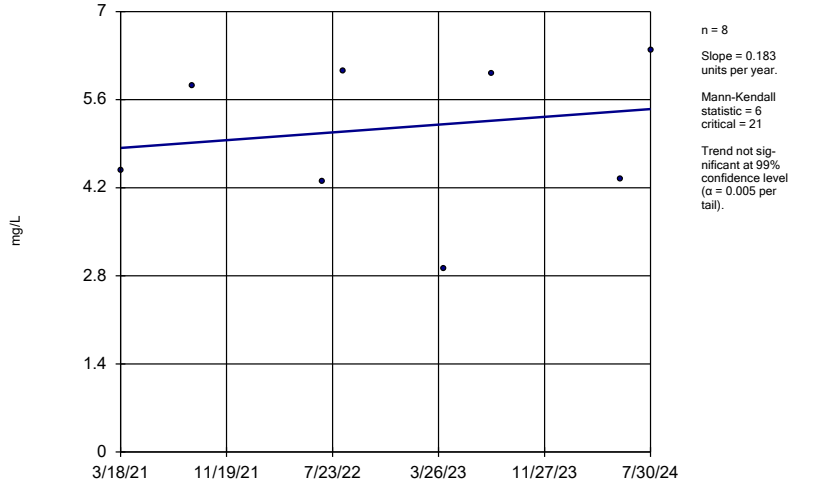
MW-7 (bg)



Constituent: Nitrogen, Ammonia Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

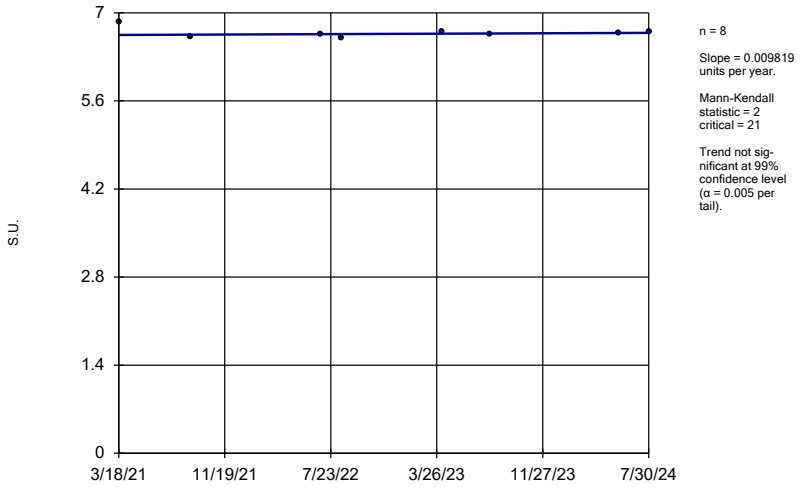
MW-11



Constituent: Nitrogen, Ammonia Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-7 (bg)



n = 8

Slope = 0.009819 units per year.

Mann-Kendall statistic = 2
critical = 21

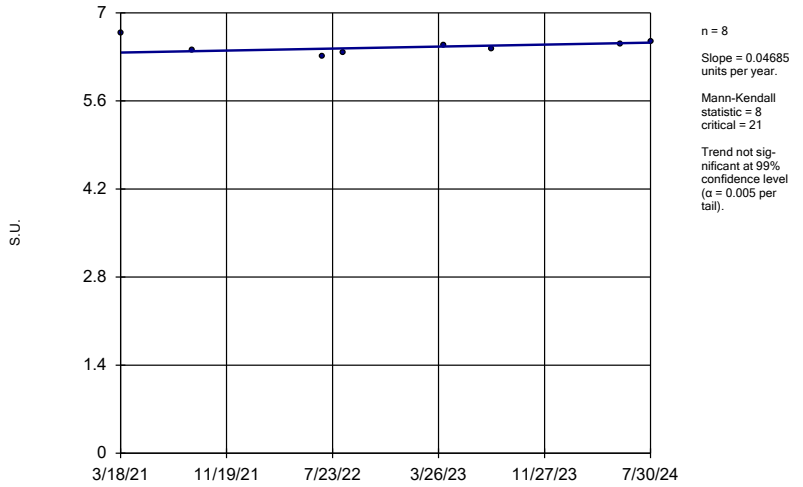
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-11



n = 8

Slope = 0.04685 units per year.

Mann-Kendall statistic = 8
critical = 21

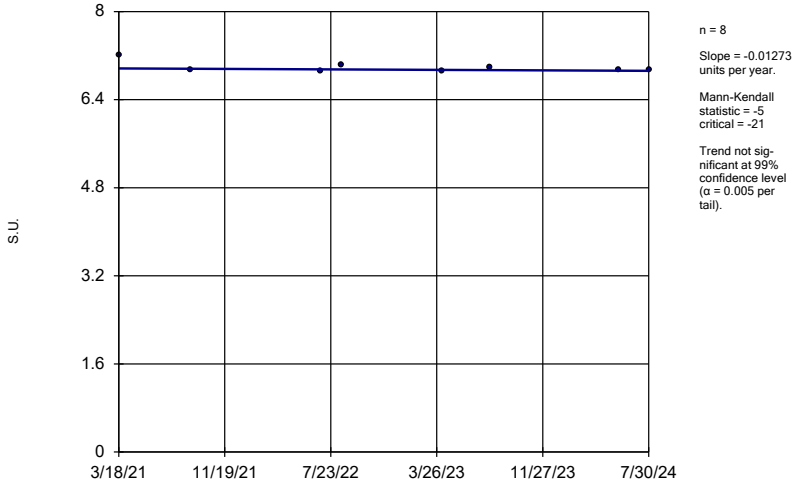
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-15



n = 8

Slope = -0.01273 units per year.

Mann-Kendall statistic = -5
critical = -21

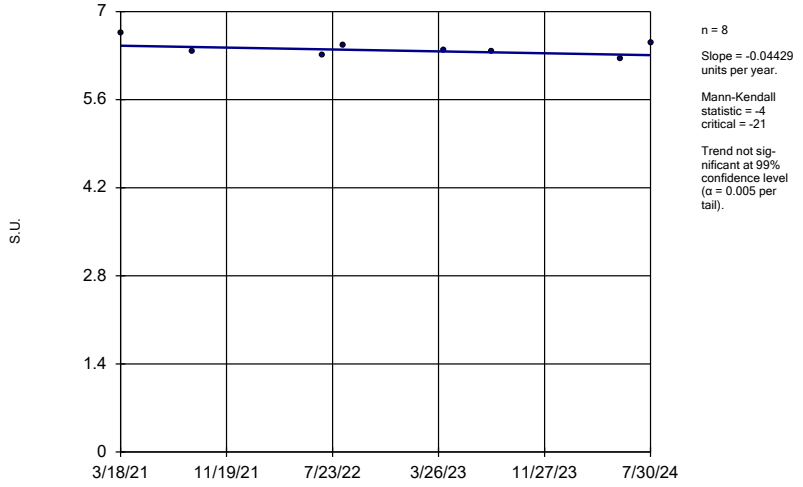
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-16



n = 8

Slope = -0.04429 units per year.

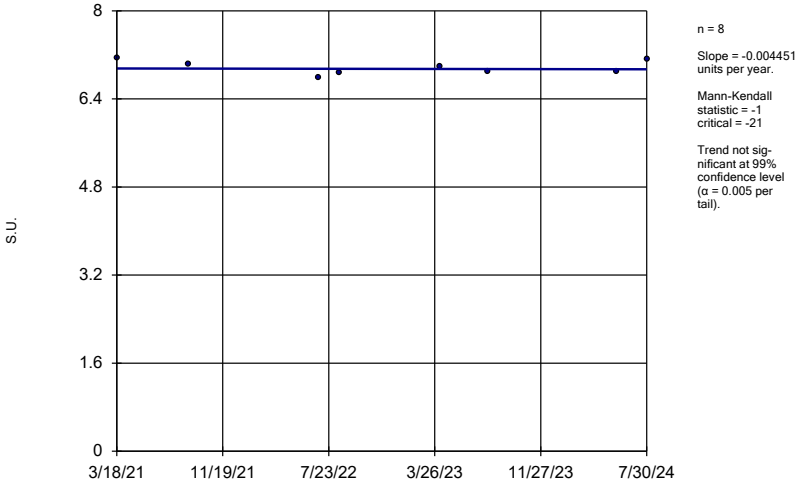
Mann-Kendall statistic = -4
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-17



n = 8

Slope = -0.004451 units per year.

Mann-Kendall statistic = -1
critical = -21

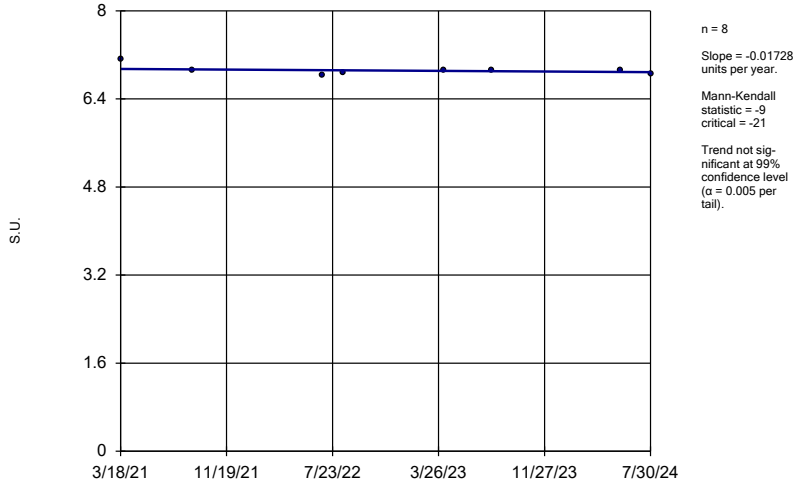
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-18R (bg)



n = 8

Slope = -0.01728 units per year.

Mann-Kendall statistic = -9
critical = -21

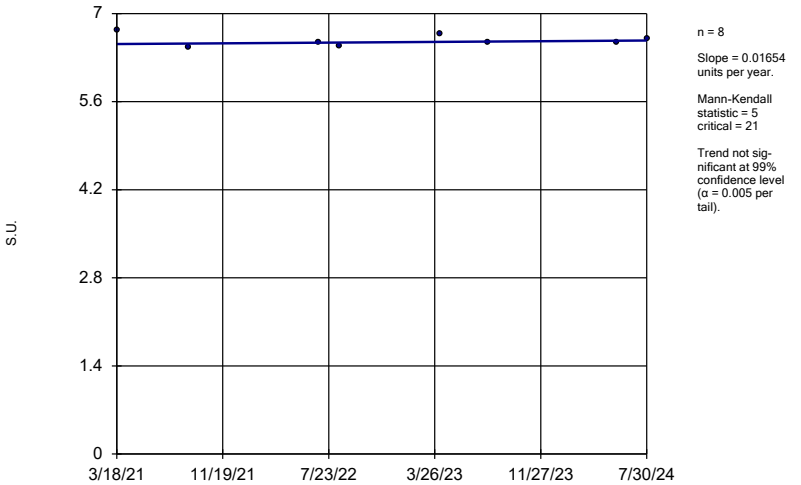
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-21



n = 8

Slope = 0.01654 units per year.

Mann-Kendall statistic = 5
critical = 21

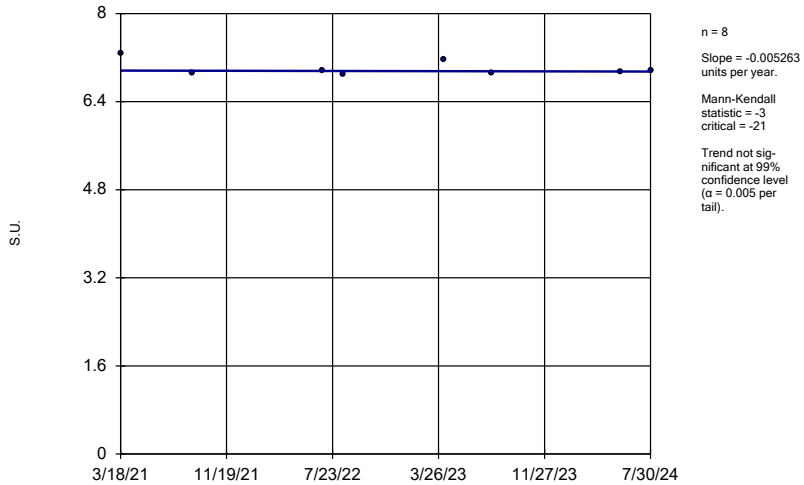
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

TW-2



n = 8

Slope = -0.005263 units per year.

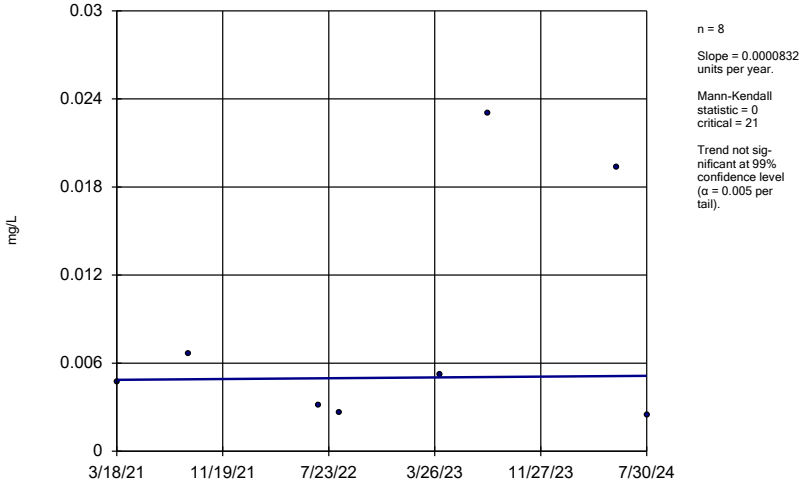
Mann-Kendall statistic = -3
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-17

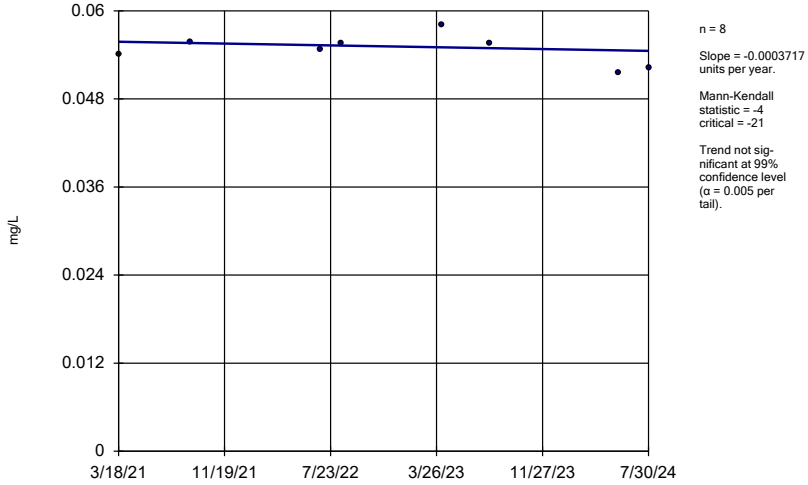


Constituent: Selenium Analysis Run 9/25/2024 4:00 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-18R (bg)



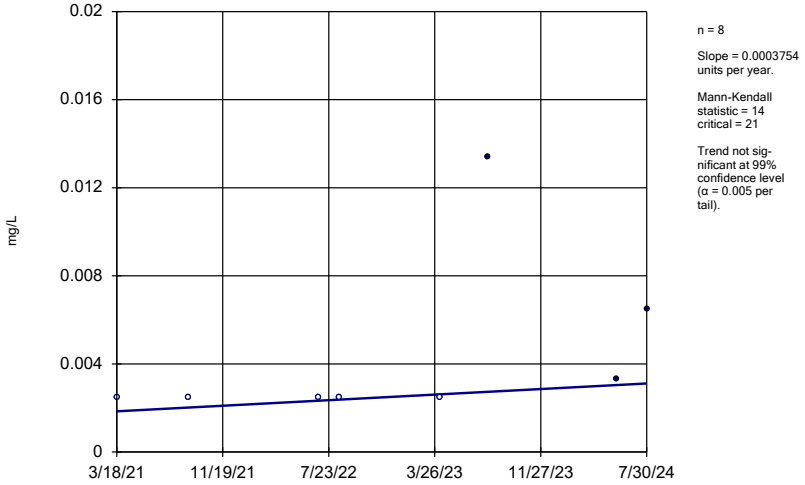
Constituent: Selenium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21

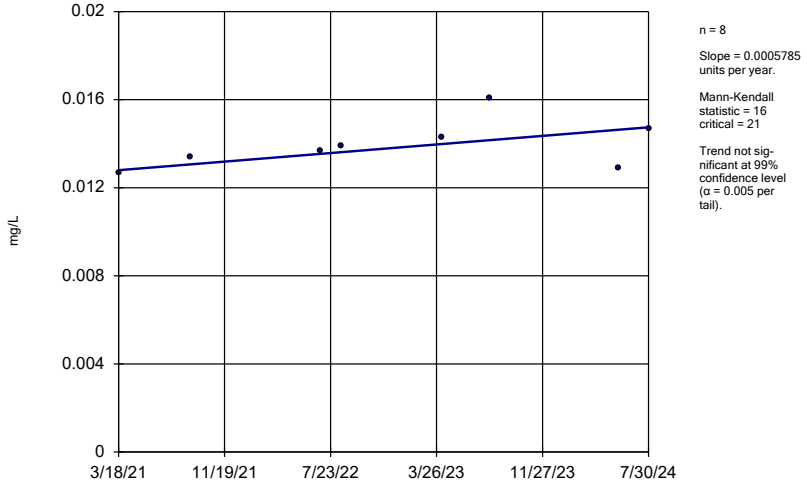


Constituent: Selenium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

TW-2

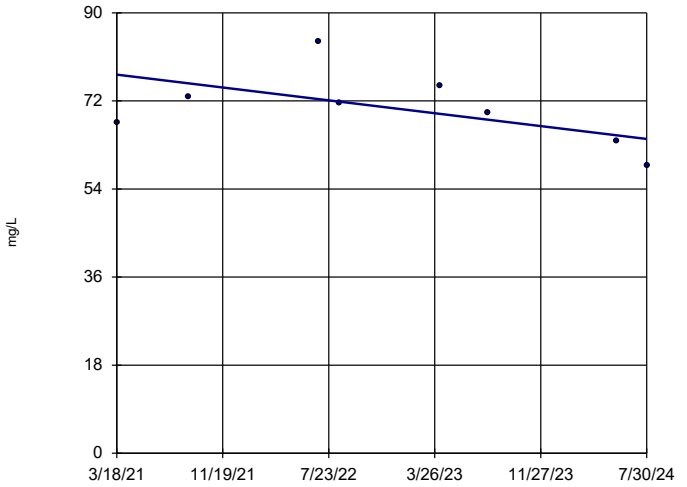


Constituent: Selenium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-7 (bg)



n = 8

Slope = -3.906 units per year.

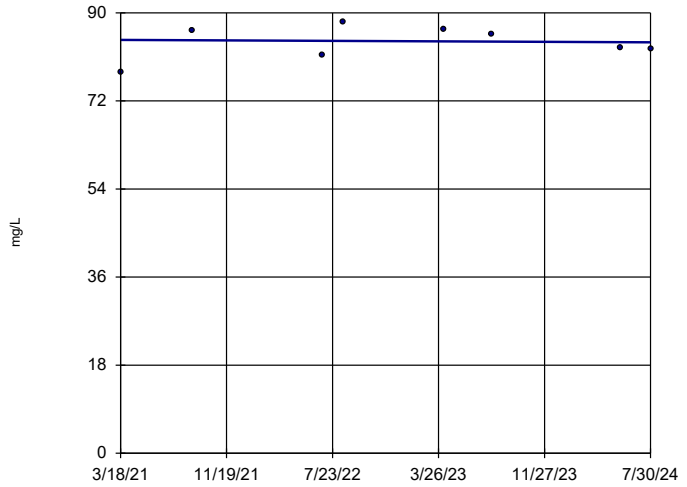
Mann-Kendall statistic = -12
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sodium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-11



n = 8

Slope = -0.1478 units per year.

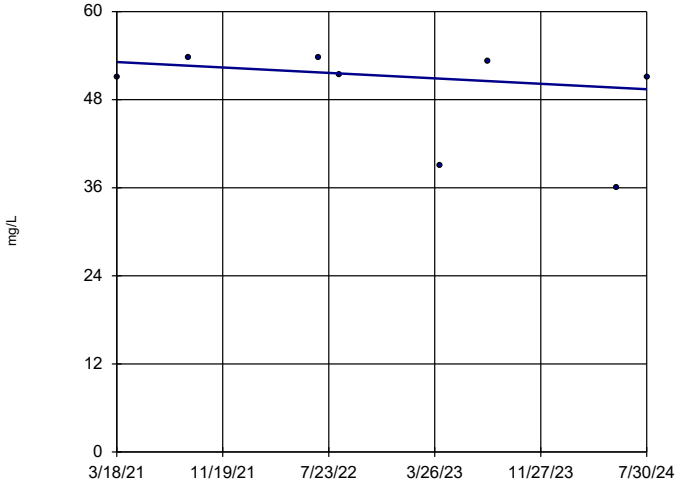
Mann-Kendall statistic = 0
critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sodium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-15



n = 8

Slope = -1.098 units per year.

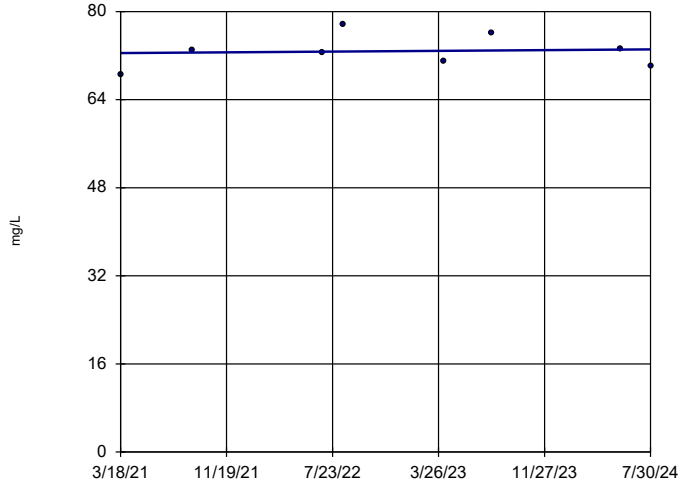
Mann-Kendall statistic = -12
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sodium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-16



n = 8

Slope = 0.1947 units per year.

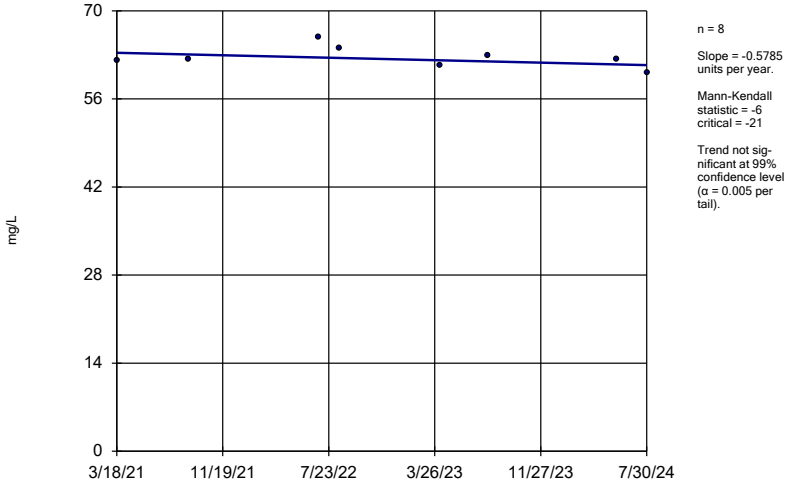
Mann-Kendall statistic = 2
critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sodium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-17



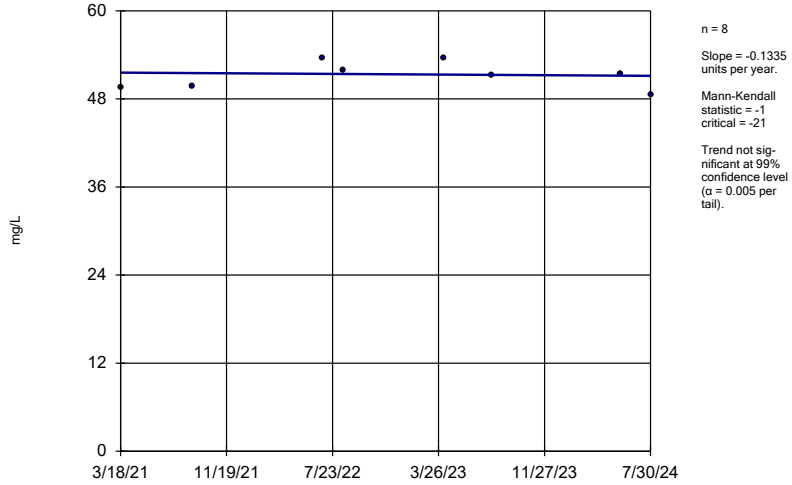
Constituent: Sodium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-18R (bg)



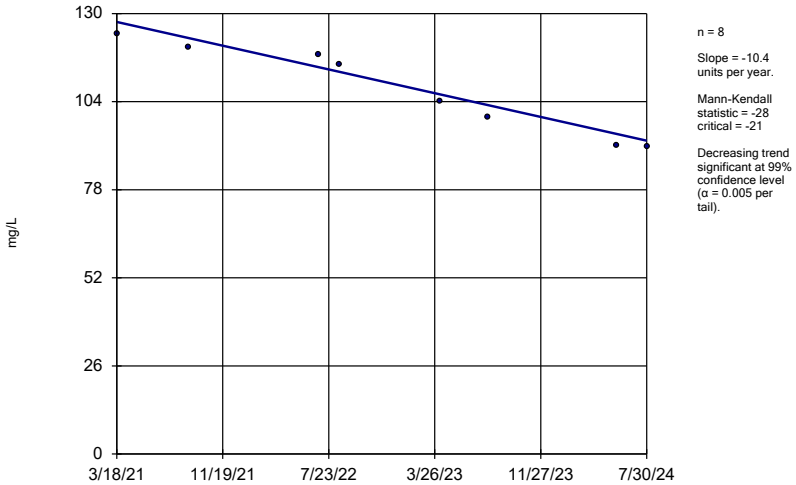
Constituent: Sodium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-21



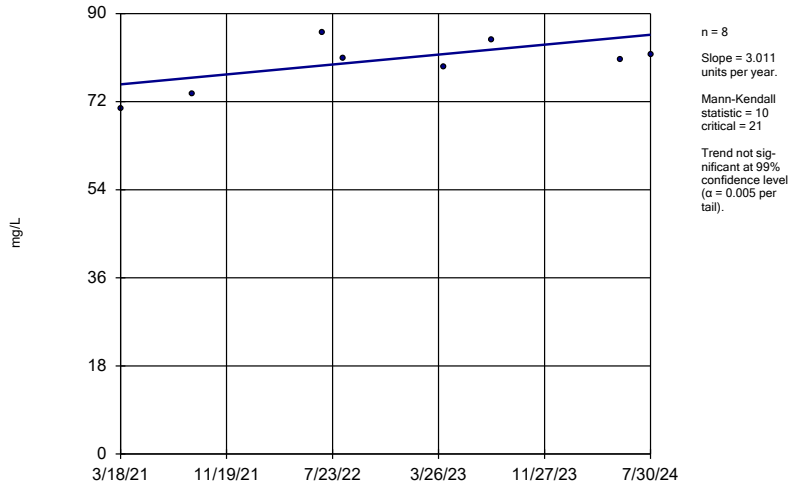
Constituent: Sodium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

TW-2

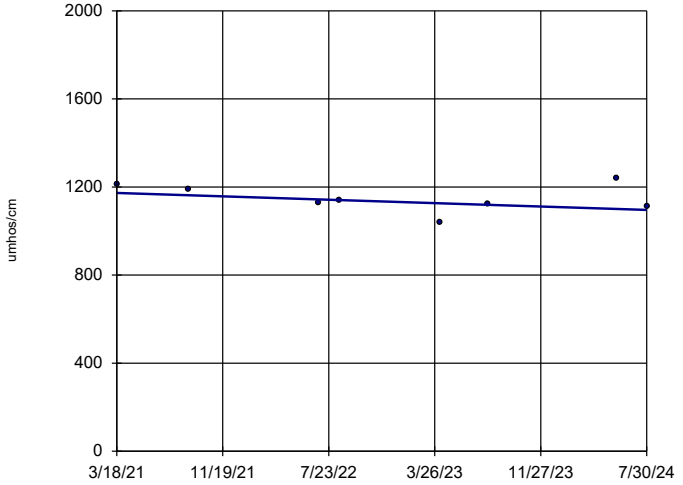


Constituent: Sodium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-7 (bg)



n = 8

Slope = -22.83 units per year.

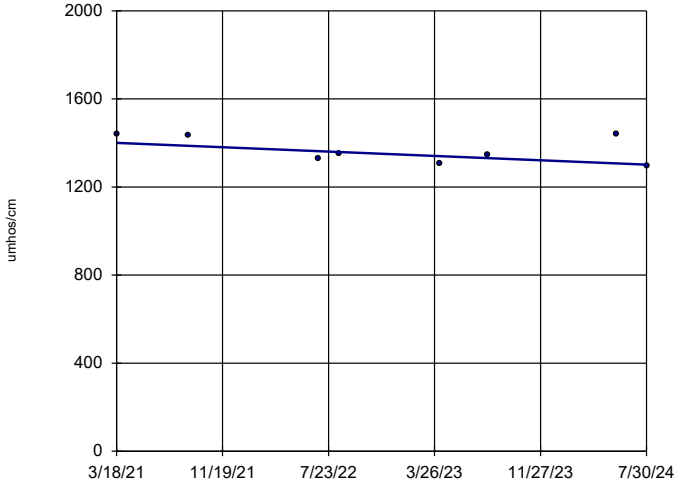
Mann-Kendall statistic = -10
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Specific Conductance Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-11



n = 8

Slope = -29.16 units per year.

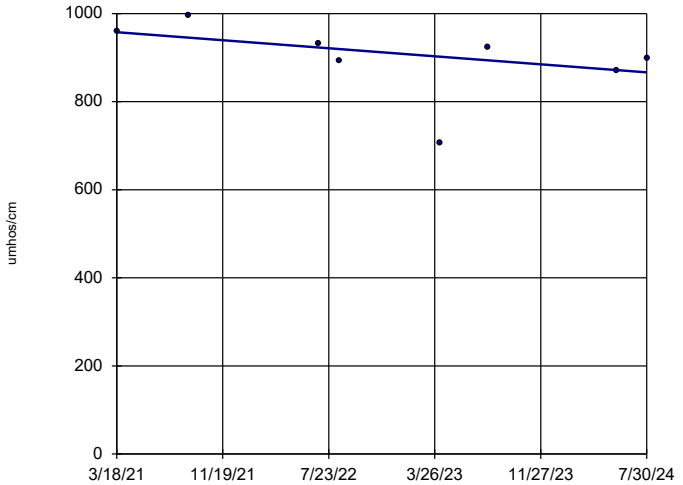
Mann-Kendall statistic = -12
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Specific Conductance Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-15



n = 8

Slope = -27.06 units per year.

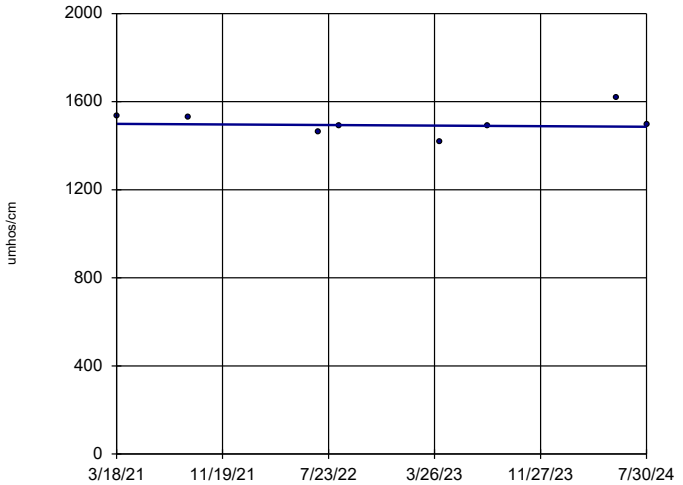
Mann-Kendall statistic = -14
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Specific Conductance Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-16



n = 8

Slope = -3.956 units per year.

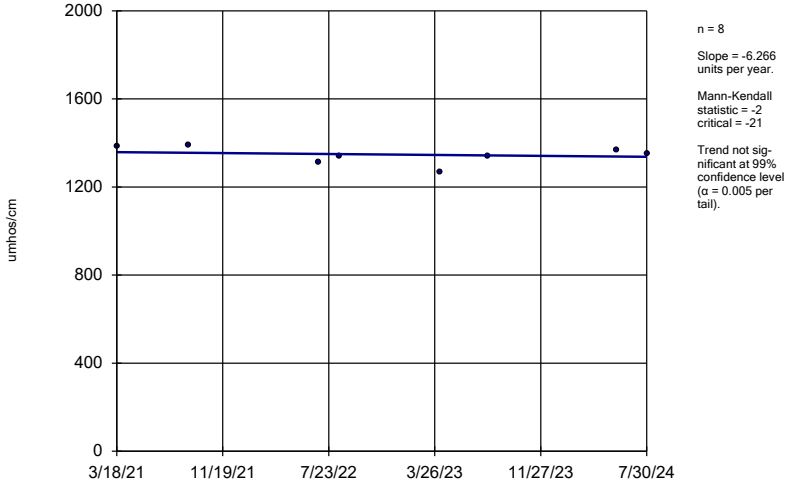
Mann-Kendall statistic = -2
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Specific Conductance Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-17

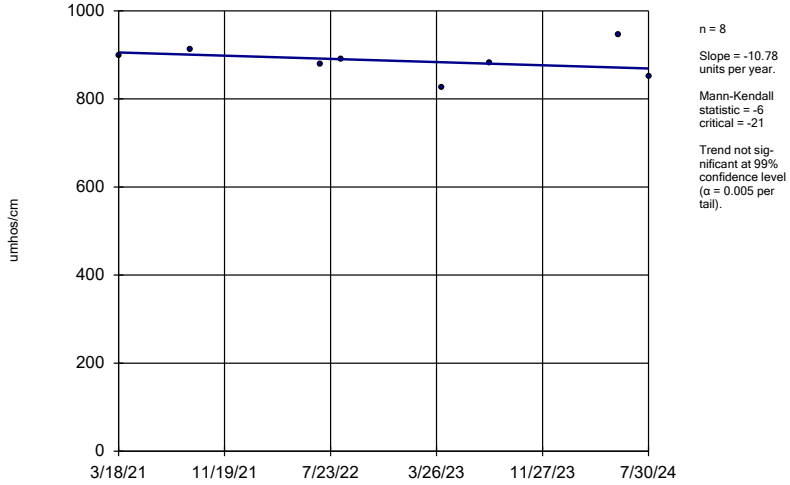


Constituent: Specific Conductance Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-18R (bg)

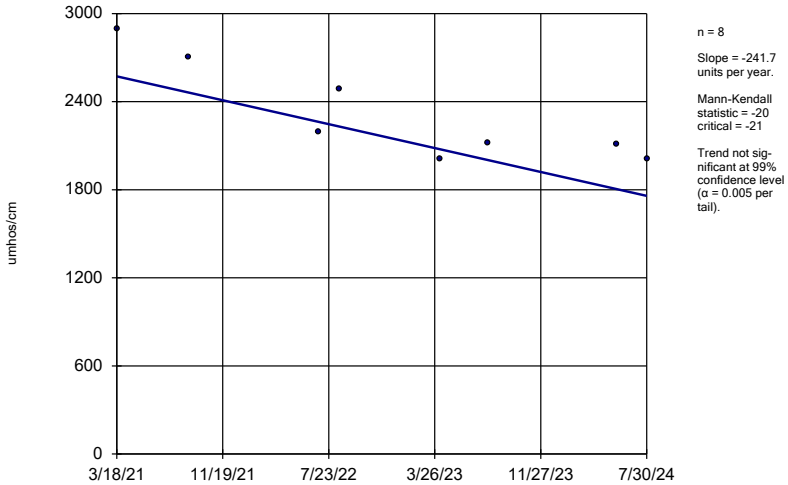


Constituent: Specific Conductance Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-21

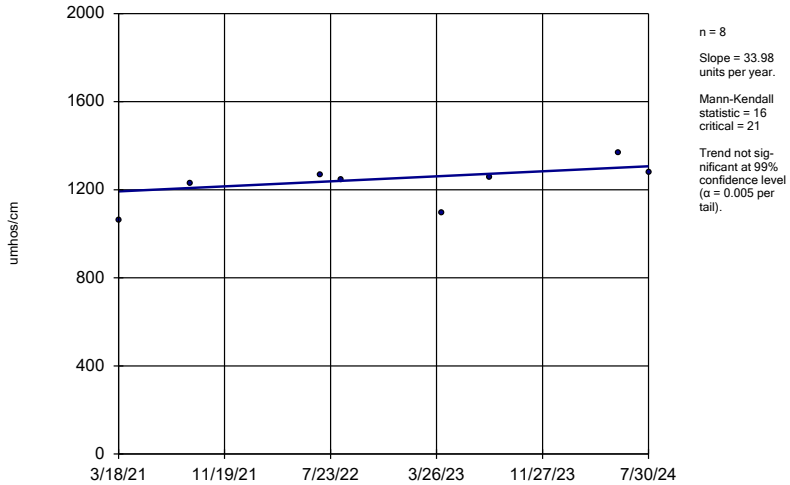


Constituent: Specific Conductance Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

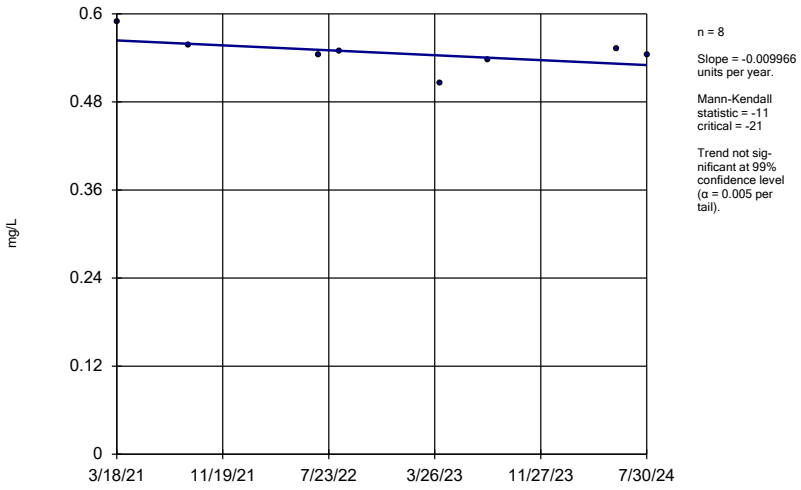
TW-2



Constituent: Specific Conductance Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-7 (bg)



n = 8

Slope = -0.009966 units per year.

Mann-Kendall statistic = -11
critical = -21

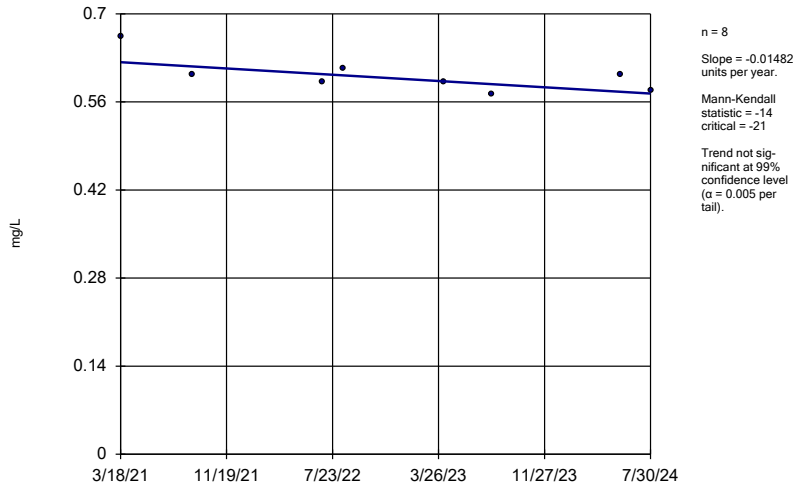
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Strontium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-11



n = 8

Slope = -0.01482 units per year.

Mann-Kendall statistic = -14
critical = -21

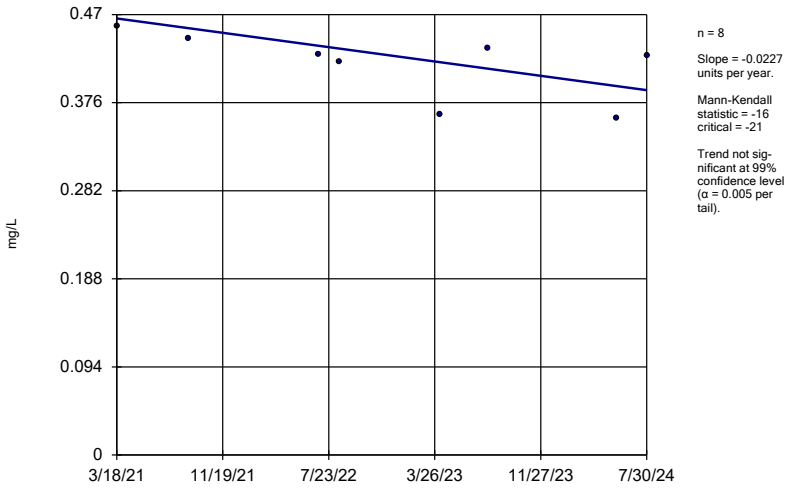
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Strontium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-15



n = 8

Slope = -0.0227 units per year.

Mann-Kendall statistic = -16
critical = -21

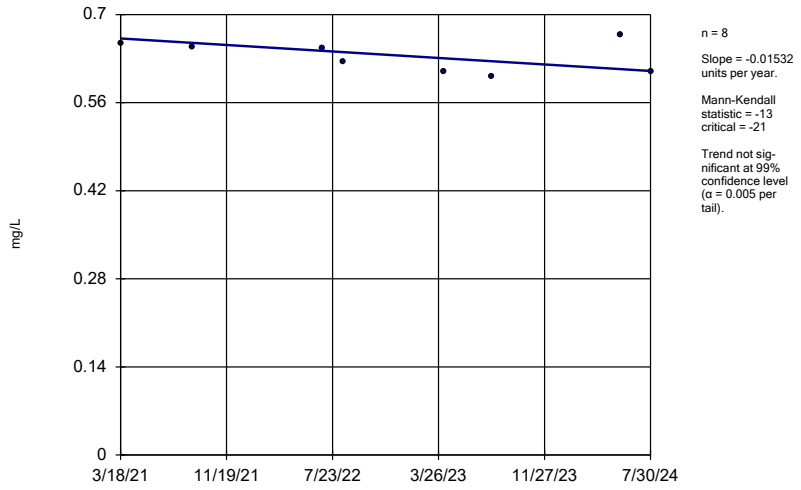
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Strontium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-16



n = 8

Slope = -0.01532 units per year.

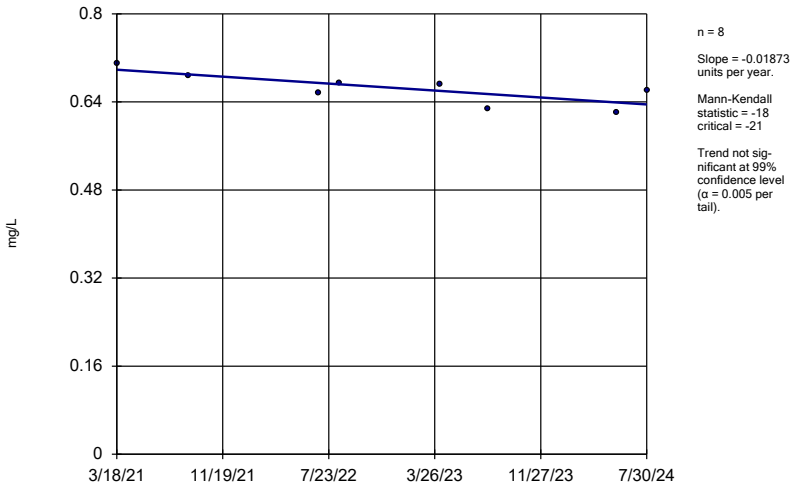
Mann-Kendall statistic = -13
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Strontium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-17



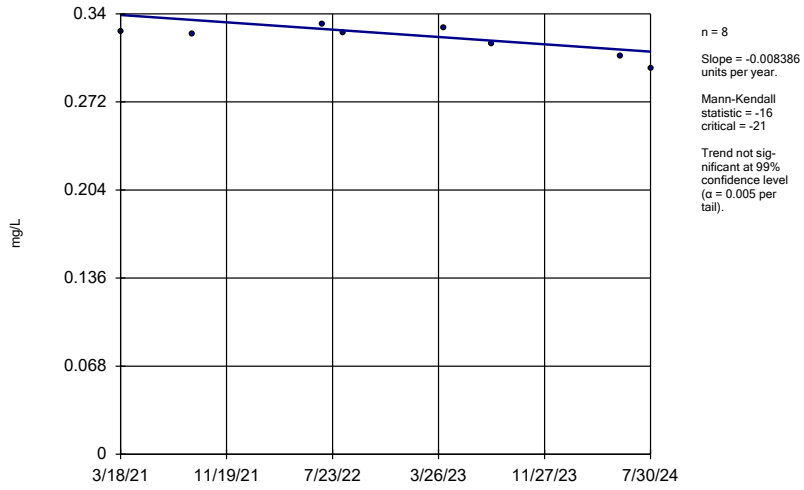
Constituent: Strontium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-18R (bg)



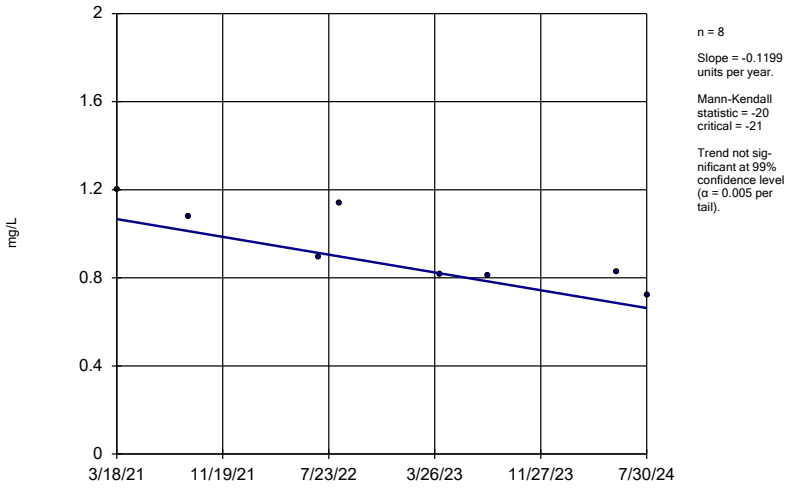
Constituent: Strontium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-21



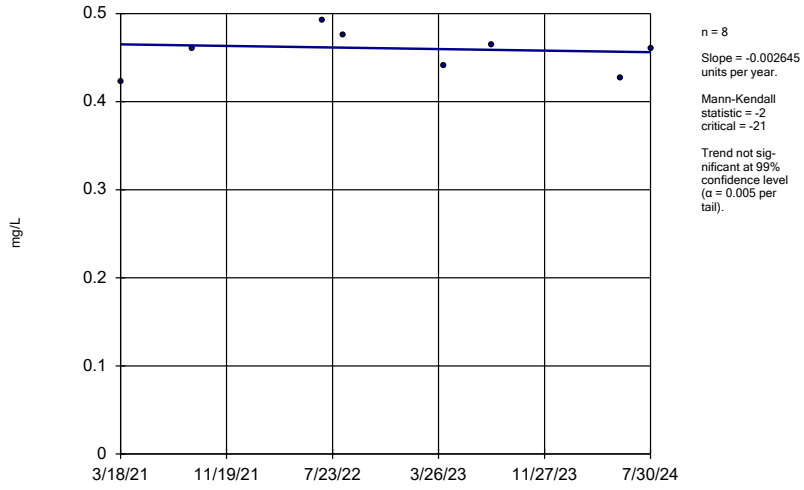
Constituent: Strontium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

TW-2

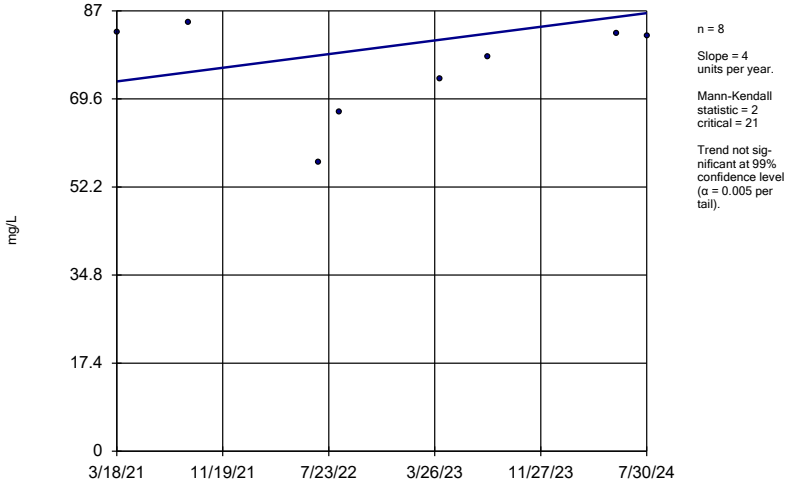


Constituent: Strontium Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-7 (bg)

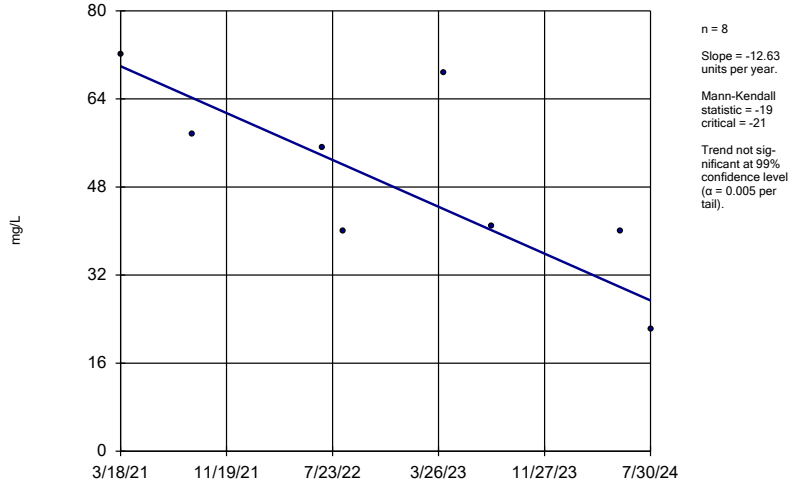


Constituent: Sulfate Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-11

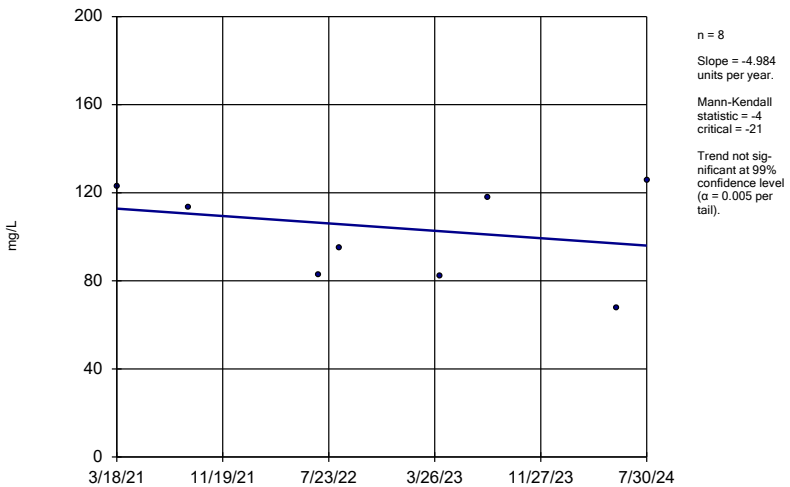


Constituent: Sulfate Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-15

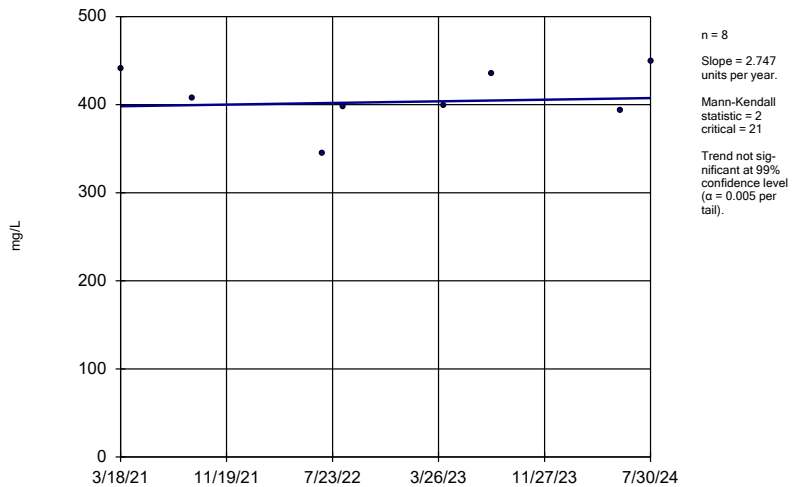


Constituent: Sulfate Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

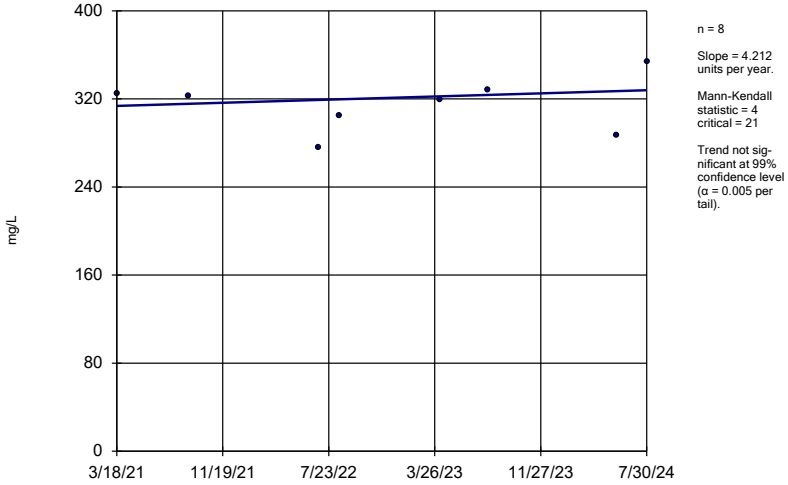
MW-16



Constituent: Sulfate Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sen's Slope Estimator

MW-17

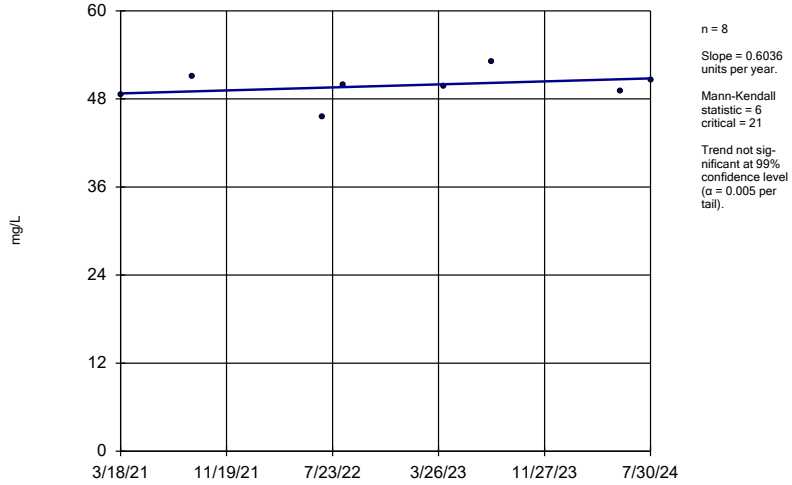


Constituent: Sulfate Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-18R (bg)

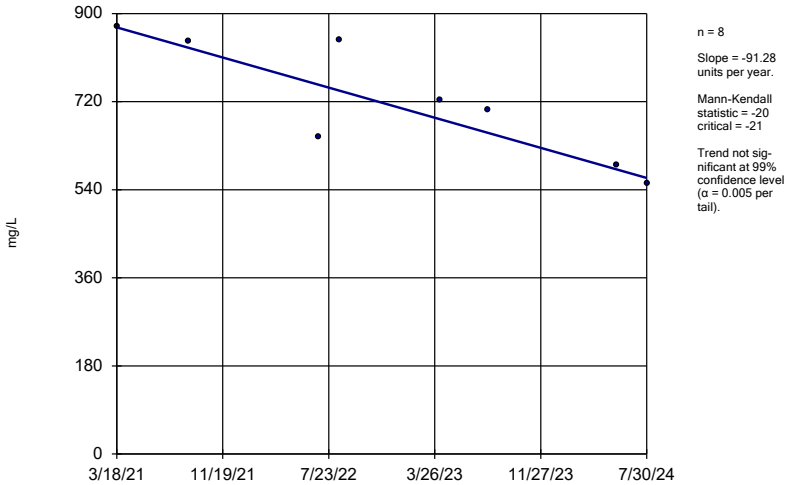


Constituent: Sulfate Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-21

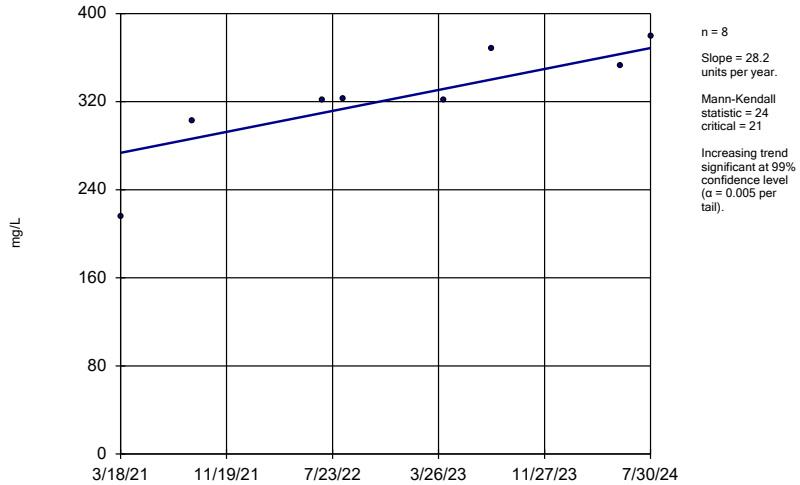


Constituent: Sulfate Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

TW-2



Constituent: Sulfate Analysis Run 9/25/2024 4:01 PM View: 2024AWQR - Mann Kendall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY-HMSP-2024AWQR-AM

Attachment B

Control Limits

Spring Control Limit

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP Printed 9/25/2024, 4:22 PM

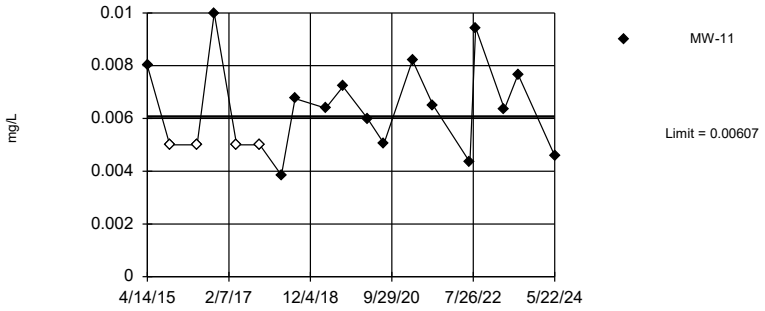
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	MW-11	0.00607	n/a	5/22/2024	0.00459	No	39	MW-18R,MW-7	0.002302	0.001884	66.67	None	No	0.0007022	Param Inter 1 of 2
Chemical Oxygen Demand (mg/L)	**MW-11**	**20.83**	**n/a**	**5/22/2024**	**71.9**	**Yes**	**124**	**MW-18R,MW-7**	**7.595**	**6.62**	**28.23**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Chloride (mg/L)	MW-11	43.45	n/a	5/22/2024	21	No	130	MW-18R,MW-7	17.91	12.77	0.7692	None	No	0.0007022	Param Inter 1 of 2
Chloride (mg/L)	MW-16	43.45	n/a	5/22/2024	5.61	No	130	MW-18R,MW-7	17.91	12.77	0.7692	None	No	0.0007022	Param Inter 1 of 2
Chloride (mg/L)	MW-17	43.45	n/a	5/22/2024	8.045	No	130	MW-18R,MW-7	17.91	12.77	0.7692	None	No	0.0007022	Param Inter 1 of 2
Chloride (mg/L)	TW-2	43.45	n/a	5/22/2024	12.3	No	130	MW-18R,MW-7	17.91	12.77	0.7692	None	No	0.0007022	Param Inter 1 of 2
Chloride (mg/L)	**MW-21**	**43.45**	**n/a**	**5/22/2024**	**71.8**	**Yes**	**130**	**MW-18R,MW-7**	**17.91**	**12.77**	**0.7692**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Iron (mg/L)	**MW-11**	**6.847**	**n/a**	**5/22/2024**	**30.2**	**Yes**	**40**	**MW-18R,MW-7**	**1.201**	**2.823**	**30**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Lithium (mg/L)	MW-15	0.0376	n/a	5/22/2024	0.0239	No	39	MW-18R,MW-7	0.0289	0.004348	0	None	No	0.0007022	Param Inter 1 of 2
Lithium (mg/L)	MW-16	0.0376	n/a	5/22/2024	0.0232	No	39	MW-18R,MW-7	0.0289	0.004348	0	None	No	0.0007022	Param Inter 1 of 2
Lithium (mg/L)	**MW-17**	**0.0376**	**n/a**	**5/22/2024**	**0.0664**	**Yes**	**39**	**MW-18R,MW-7**	**0.0289**	**0.004348**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Lithium (mg/L)	TW-2	0.0376	n/a	5/22/2024	0.0372	No	39	MW-18R,MW-7	0.0289	0.004348	0	None	No	0.0007022	Param Inter 1 of 2
Lithium (mg/L)	MW-21	0.0376	n/a	5/22/2024	0.025	No	39	MW-18R,MW-7	0.0289	0.004348	0	None	No	0.0007022	Param Inter 1 of 2
Manganese (mg/L)	**MW-11**	**3.291**	**n/a**	**5/22/2024**	**5.35**	**Yes**	**39**	**MW-18R,MW-7**	**0.9679**	**1.162**	**35.9**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Manganese (mg/L)	MW-16	3.291	n/a	5/22/2024	0.194	No	39	MW-18R,MW-7	0.9679	1.162	35.9	None	No	0.0007022	Param Inter 1 of 2
Manganese (mg/L)	MW-17	3.291	n/a	5/22/2024	0.3825	No	39	MW-18R,MW-7	0.9679	1.162	35.9	None	No	0.0007022	Param Inter 1 of 2
Manganese (mg/L)	MW-21	3.291	n/a	5/22/2024	0.0253	No	39	MW-18R,MW-7	0.9679	1.162	35.9	None	No	0.0007022	Param Inter 1 of 2
Nitrogen, Ammonia (mg/L)	**MW-11**	**0.3097**	**n/a**	**5/22/2024**	**4.34**	**Yes**	**130**	**MW-18R,MW-7**	**0.09221**	**0.1088**	**60.77**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
pH (S.U.)	MW-11	7.462	6.436	5/22/2024	6.5	No	129	MW-18R,MW-7	6.949	0.2564	0	None	No	0.0003511	Param Inter 1 of 2
pH (S.U.)	MW-15	7.462	6.436	5/22/2024	6.94	No	129	MW-18R,MW-7	6.949	0.2564	0	None	No	0.0003511	Param Inter 1 of 2
pH (S.U.)	**MW-16**	**7.462**	**6.436**	**5/22/2024**	**6.24**	**Yes**	**129**	**MW-18R,MW-7**	**6.949**	**0.2564**	**0**	**None**	**No**	**0.0003511**	**Param Inter 1 of 2**
pH (S.U.)	MW-17	7.462	6.436	5/22/2024	6.9	No	129	MW-18R,MW-7	6.949	0.2564	0	None	No	0.0003511	Param Inter 1 of 2
pH (S.U.)	TW-2	7.462	6.436	5/22/2024	6.95	No	129	MW-18R,MW-7	6.949	0.2564	0	None	No	0.0003511	Param Inter 1 of 2
pH (S.U.)	MW-21	7.462	6.436	5/22/2024	6.55	No	129	MW-18R,MW-7	6.949	0.2564	0	None	No	0.0003511	Param Inter 1 of 2
Selenium (mg/L)	MW-17	0.1025	n/a	5/22/2024	0.01935	No	40	MW-18R,MW-7	0.03365	0.03445	40	None	No	0.0007022	Param Inter 1 of 2
Selenium (mg/L)	TW-2	0.1025	n/a	5/22/2024	0.0129	No	40	MW-18R,MW-7	0.03365	0.03445	40	None	No	0.0007022	Param Inter 1 of 2
Sodium (mg/L)	**MW-11**	**77.35**	**n/a**	**5/22/2024**	**82.8**	**Yes**	**40**	**MW-18R,MW-7**	**57.55**	**9.902**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Sodium (mg/L)	MW-15	77.35	n/a	5/22/2024	36.1	No	40	MW-18R,MW-7	57.55	9.902	0	None	No	0.0007022	Param Inter 1 of 2
Sodium (mg/L)	MW-16	77.35	n/a	5/22/2024	73.2	No	40	MW-18R,MW-7	57.55	9.902	0	None	No	0.0007022	Param Inter 1 of 2
Sodium (mg/L)	MW-17	77.35	n/a	5/22/2024	62.35	No	40	MW-18R,MW-7	57.55	9.902	0	None	No	0.0007022	Param Inter 1 of 2
Sodium (mg/L)	**TW-2**	**77.35**	**n/a**	**5/22/2024**	**80.7**	**Yes**	**40**	**MW-18R,MW-7**	**57.55**	**9.902**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Sodium (mg/L)	**MW-21**	**77.35**	**n/a**	**5/22/2024**	**91**	**Yes**	**40**	**MW-18R,MW-7**	**57.55**	**9.902**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Specific Conductance (umhos/cm)	**MW-11**	**1425**	**n/a**	**5/22/2024**	**1440**	**Yes**	**129**	**MW-18R,MW-7**	**1023**	**201**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Specific Conductance (umhos/cm)	MW-15	1425	n/a	5/22/2024	870.5	No	129	MW-18R,MW-7	1023	201	0	None	No	0.0007022	Param Inter 1 of 2
Specific Conductance (umhos/cm)	**MW-16**	**1425**	**n/a**	**5/22/2024**	**1619**	**Yes**	**129**	**MW-18R,MW-7**	**1023**	**201**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Specific Conductance (umhos/cm)	MW-17	1425	n/a	5/22/2024	1370	No	129	MW-18R,MW-7	1023	201	0	None	No	0.0007022	Param Inter 1 of 2
Specific Conductance (umhos/cm)	TW-2	1425	n/a	5/22/2024	1367	No	129	MW-18R,MW-7	1023	201	0	None	No	0.0007022	Param Inter 1 of 2
Specific Conductance (umhos/cm)	**MW-21**	**1425**	**n/a**	**5/22/2024**	**2109**	**Yes**	**129**	**MW-18R,MW-7**	**1023**	**201**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Strontium (mg/L)	MW-11	0.7872	n/a	5/22/2024	0.604	No	39	MW-18R,MW-7	0.4662	0.1605	0	None	No	0.0007022	Param Inter 1 of 2
Strontium (mg/L)	MW-15	0.7872	n/a	5/22/2024	0.36	No	39	MW-18R,MW-7	0.4662	0.1605	0	None	No	0.0007022	Param Inter 1 of 2
Strontium (mg/L)	MW-16	0.7872	n/a	5/22/2024	0.667	No	39	MW-18R,MW-7	0.4662	0.1605	0	None	No	0.0007022	Param Inter 1 of 2
Strontium (mg/L)	MW-17	0.7872	n/a	5/22/2024	0.62	No	39	MW-18R,MW-7	0.4662	0.1605	0	None	No	0.0007022	Param Inter 1 of 2
Strontium (mg/L)	TW-2	0.7872	n/a	5/22/2024	0.427	No	39	MW-18R,MW-7	0.4662	0.1605	0	None	No	0.0007022	Param Inter 1 of 2
Strontium (mg/L)	**MW-21**	**0.7872**	**n/a**	**5/22/2024**	**0.826**	**Yes**	**39**	**MW-18R,MW-7**	**0.4662**	**0.1605**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Sulfate (mg/L)	MW-11	226.1	n/a	5/22/2024	39.9	No	124	MW-18R,MW-7	66.08	80	0	None	No	0.0007022	Param Inter 1 of 2
Sulfate (mg/L)	MW-15	226.1	n/a	5/22/2024	67.7	No	124	MW-18R,MW-7	66.08	80	0	None	No	0.0007022	Param Inter 1 of 2
Sulfate (mg/L)	**MW-16**	**226.1**	**n/a**	**5/22/2024**	**394**	**Yes**	**124**	**MW-18R,MW-7**	**66.08**	**80**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-17**	**226.1**	**n/a**	**5/22/2024**	**287**	**Yes**	**124**	**MW-18R,MW-7**	**66.08**	**80**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Sulfate (mg/L)	**TW-2**	**226.1**	**n/a**	**5/22/2024**	**353**	**Yes**	**124**	**MW-18R,MW-7**	**66.08**	**80**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-21**	**226.1**	**n/a**	**5/22/2024**	**590**	**Yes**	**124**	**MW-18R,MW-7**	**66.08**	**80**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.002302, Std. Dev.=0.001884, n=39, 66.67% NDs (user selected parametric test despite non-detects). Normality test was disabled. Assumes 4 future values. Kappa overridden to 2.

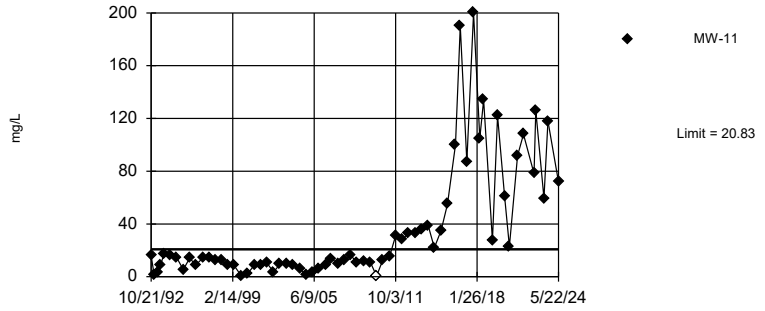
Constituent: Arsenic Analysis Run 9/25/2024 4:18 PM View: 2024AWQR-Control Limit-Spring
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-11

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=7.595, Std. Dev.=6.62, n=124, 28.23% NDs. Normality test was disabled. Assumes 4 future values. Kappa overridden to 2.

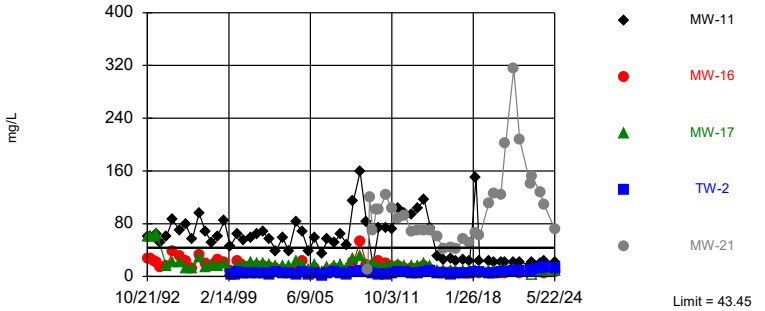
Constituent: Chemical Oxygen Demand Analysis Run 9/25/2024 4:18 PM View: 2024AWQR-Control Limit-
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-21

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=17.91, Std. Dev.=12.77, n=130, 0.7692% NDs. Normality test was disabled. Comparing 5 points to limit. Kappa overridden to 2.

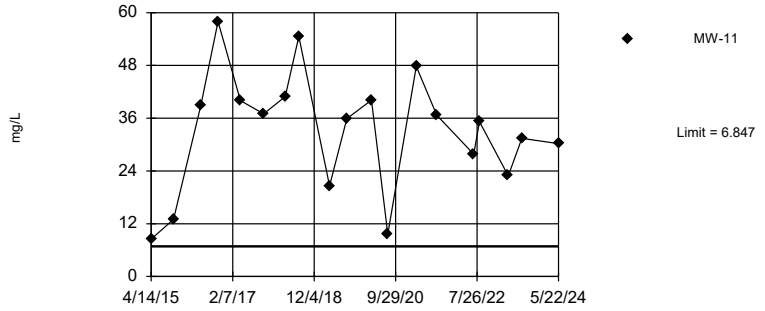
Constituent: Chloride Analysis Run 9/25/2024 4:19 PM View: 2024AWQR-Control Limit-Spring
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Exceeds Limit: MW-11

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=1.201, Std. Dev.=2.823, n=40, 30% NDs. Normality test was disabled. Assumes 4 future values. Kappa overridden to 2.

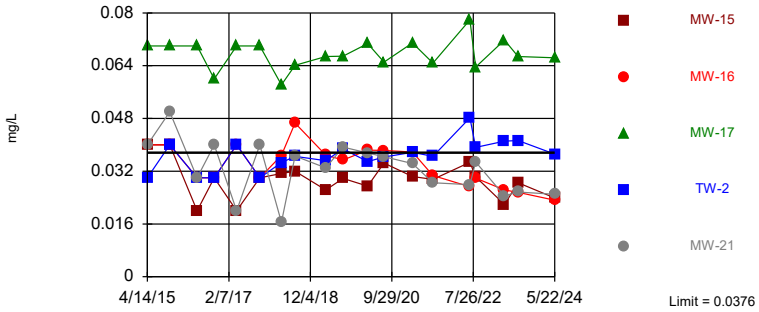
Constituent: Iron Analysis Run 9/25/2024 4:19 PM View: 2024AWQR-Control Limit-Spring
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Exceeds Limit: MW-17

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.0289, Std. Dev.=0.004348, n=39. Normality test was disabled. Comparing 5 points to limit. Kappa overridden to 2.

Constituent: Lithium Analysis Run 9/25/2024 4:19 PM View: 2024AWQR-Control Limit-Spring

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

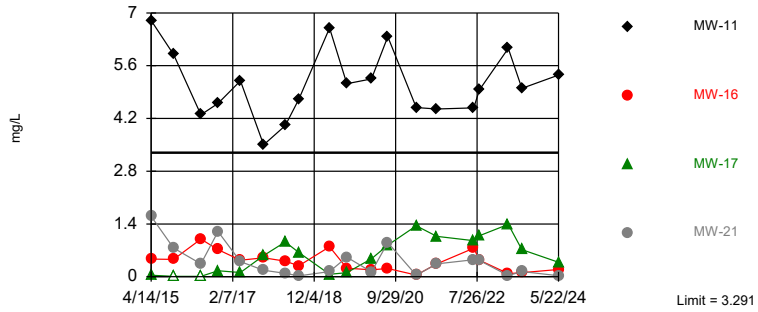
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Exceeds Limit: MW-11

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.9679, Std. Dev.=1.162, n=39, 35.9% NDs. Normality test was disabled. Comparing 4 points to limit. Assumes 1 future value. Kappa overridden to 2.

Constituent: Manganese Analysis Run 9/25/2024 4:19 PM View: 2024AWQR-Control Limit-Spring

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

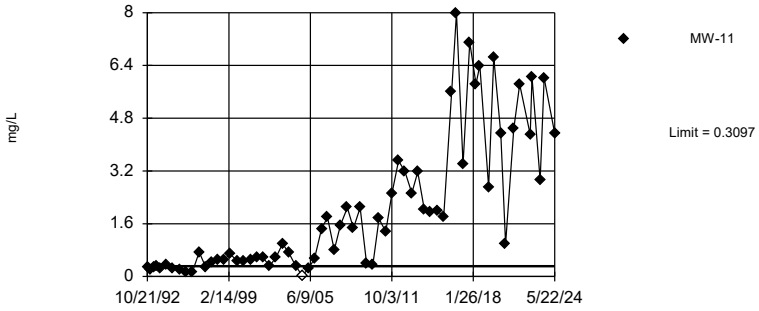
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Exceeds Limit: MW-11

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.09221, Std. Dev.=0.1088, n=130, 60.77% NDs (user selected parametric test despite non-detects). Normality test was disabled. Assumes 4 future values. Kappa overridden to 2.

Constituent: Nitrogen, Ammonia Analysis Run 9/25/2024 4:19 PM View: 2024AWQR-Control Limit-Spring

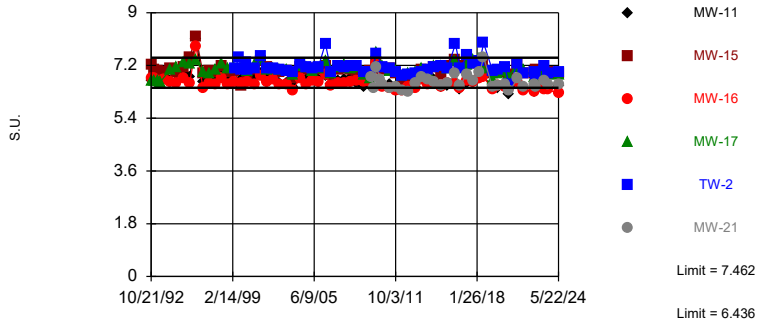
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Exceeds Limits: MW-16

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=6.949, Std. Dev.=0.2564, n=129. Normality test was disabled. Comparing 6 points to limit. Kappa overridden to 2.

Constituent: pH Analysis Run 9/25/2024 4:19 PM View: 2024AWQR-Control Limit-Spring

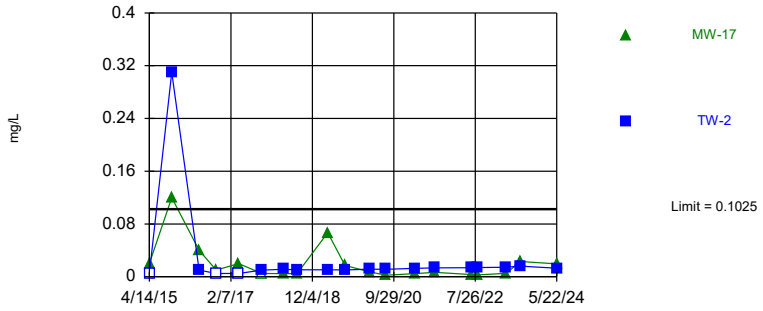
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.03365, Std. Dev.=0.03445, n=40, 40% NDs. Normality test was disabled. Comparing 2 points to limit. Assumes 3 future values. Kappa overridden to 2.

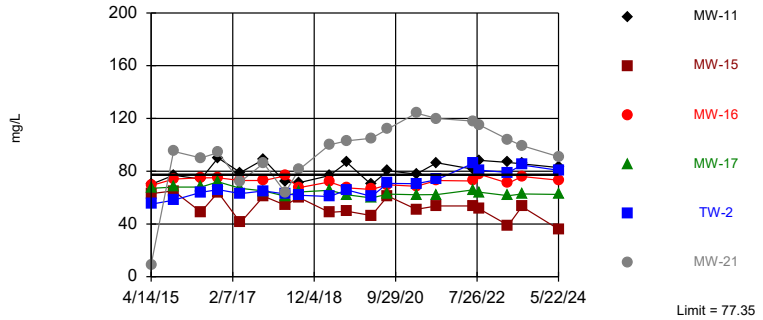
Constituent: Selenium Analysis Run 9/25/2024 4:19 PM View: 2024AWQR-Control Limit-Spring
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Exceeds Limit: MW-11, TW-2, MW-21

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=57.55, Std. Dev.=9.902, n=40. Normality test was disabled. Comparing 6 points to limit. Kappa overridden to 2.

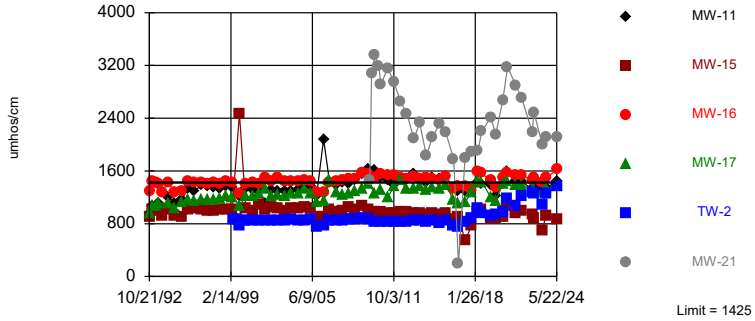
Constituent: Sodium Analysis Run 9/25/2024 4:19 PM View: 2024AWQR-Control Limit-Spring
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Exceeds Limit: MW-11, MW-16, MW-21

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=1023, Std. Dev.=201, n=129. Normality test was disabled. Comparing 6 points to limit. Kappa overridden to 2.

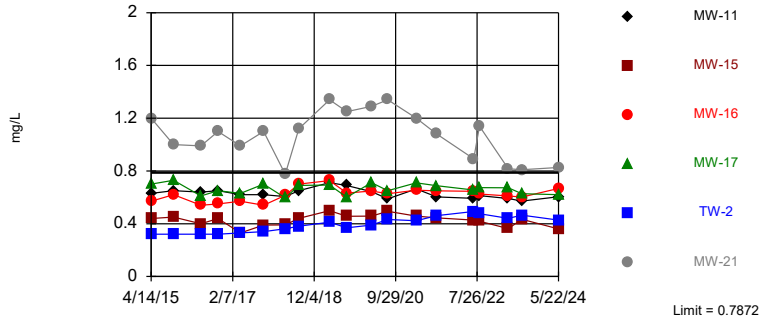
Constituent: Specific Conductance Analysis Run 9/25/2024 4:19 PM View: 2024AWQR-Control Limit-Spri
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Exceeds Limit: MW-21

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.4662, Std. Dev.=0.1605, n=39. Normality test was disabled. Comparing 6 points to limit. Kappa overridden to 2.

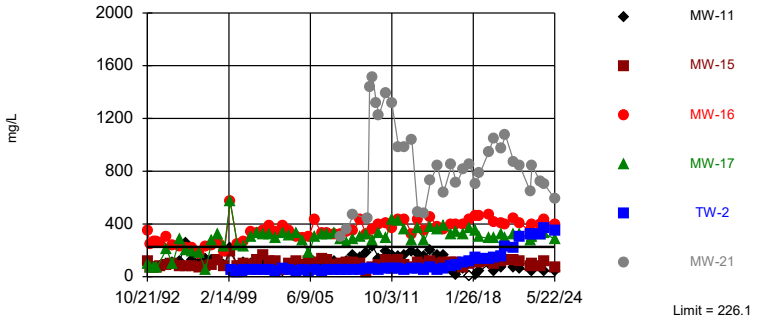
Constituent: Strontium Analysis Run 9/25/2024 4:19 PM View: 2024AWQR-Control Limit-Spring
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Hollow symbols indicate censored values.

Exceeds Limit: MW-16, MW-17, TW-2, MW-21

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=66.08, Std. Dev.=80, n=124. Normality test was disabled. Comparing 6 points to limit. Kappa overridden to 2.

Constituent: Sulfate Analysis Run 9/25/2024 4:19 PM View: 2024AWQR-Control Limit-Spring

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Fall Control Limit

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP Printed 9/25/2024, 4:33 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	**MW-11**	**0.005953**	**n/a**	**7/30/2024**	**0.0101**	**Yes**	**41**	**MW-18R,MW-7**	**0.002247**	**0.001853**	**65.85**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Chemical Oxygen Demand (mg/L)	**MW-11**	**20.91**	**n/a**	**7/30/2024**	**141**	**Yes**	**126**	**MW-18R,MW-7**	**7.63**	**6.638**	**28.57**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Chemical Oxygen Demand (mg/L)	MW-15	20.91	n/a	7/30/2024	8.585	No	126	MW-18R,MW-7	7.63	6.638	28.57	None	No	0.0007022	Param Inter 1 of 2
Chemical Oxygen Demand (mg/L)	MW-16	20.91	n/a	7/30/2024	8.08	No	126	MW-18R,MW-7	7.63	6.638	28.57	None	No	0.0007022	Param Inter 1 of 2
Chemical Oxygen Demand (mg/L)	MW-17	20.91	n/a	7/30/2024	5.03	No	126	MW-18R,MW-7	7.63	6.638	28.57	None	No	0.0007022	Param Inter 1 of 2
Chemical Oxygen Demand (mg/L)	TW-2	20.91	n/a	7/30/2024	5.37	No	126	MW-18R,MW-7	7.63	6.638	28.57	None	No	0.0007022	Param Inter 1 of 2
Chemical Oxygen Demand (mg/L)	MW-21	20.91	n/a	7/30/2024	11.1	No	126	MW-18R,MW-7	7.63	6.638	28.57	None	No	0.0007022	Param Inter 1 of 2
Chloride (mg/L)	MW-11	43.25	n/a	7/30/2024	21.4	No	132	MW-18R,MW-7	17.73	12.76	0.7576	None	No	0.0007022	Param Inter 1 of 2
Chloride (mg/L)	MW-15	43.25	n/a	7/30/2024	8.325	No	132	MW-18R,MW-7	17.73	12.76	0.7576	None	No	0.0007022	Param Inter 1 of 2
Chloride (mg/L)	MW-16	43.25	n/a	7/30/2024	5.75	No	132	MW-18R,MW-7	17.73	12.76	0.7576	None	No	0.0007022	Param Inter 1 of 2
Chloride (mg/L)	MW-17	43.25	n/a	7/30/2024	8.61	No	132	MW-18R,MW-7	17.73	12.76	0.7576	None	No	0.0007022	Param Inter 1 of 2
Chloride (mg/L)	TW-2	43.25	n/a	7/30/2024	13.6	No	132	MW-18R,MW-7	17.73	12.76	0.7576	None	No	0.0007022	Param Inter 1 of 2
Chloride (mg/L)	**MW-21**	**43.25**	**n/a**	**7/30/2024**	**79.9**	**Yes**	**132**	**MW-18R,MW-7**	**17.73**	**12.76**	**0.7576**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Iron (mg/L)	**MW-11**	**6.735**	**n/a**	**7/30/2024**	**42.4**	**Yes**	**42**	**MW-18R,MW-7**	**1.203**	**2.766**	**30.95**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Lithium (mg/L)	MW-15	0.03762	n/a	7/30/2024	0.0327	No	41	MW-18R,MW-7	0.02877	0.004426	0	None	No	0.0007022	Param Inter 1 of 2
Lithium (mg/L)	MW-16	0.03762	n/a	7/30/2024	0.0372	No	41	MW-18R,MW-7	0.02877	0.004426	0	None	No	0.0007022	Param Inter 1 of 2
Lithium (mg/L)	**MW-17**	**0.03762**	**n/a**	**7/30/2024**	**0.0734**	**Yes**	**41**	**MW-18R,MW-7**	**0.02877**	**0.004426**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Lithium (mg/L)	**TW-2**	**0.03762**	**n/a**	**7/30/2024**	**0.0442**	**Yes**	**41**	**MW-18R,MW-7**	**0.02877**	**0.004426**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Lithium (mg/L)	MW-21	0.03762	n/a	7/30/2024	0.0245	No	41	MW-18R,MW-7	0.02877	0.004426	0	None	No	0.0007022	Param Inter 1 of 2
Manganese (mg/L)	**MW-11**	**3.291**	**n/a**	**7/30/2024**	**4.63**	**Yes**	**41**	**MW-18R,MW-7**	**0.974**	**1.158**	**36.59**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Manganese (mg/L)	MW-16	3.291	n/a	7/30/2024	0.0389	No	41	MW-18R,MW-7	0.974	1.158	36.59	None	No	0.0007022	Param Inter 1 of 2
Manganese (mg/L)	MW-17	3.291	n/a	7/30/2024	1.26	No	41	MW-18R,MW-7	0.974	1.158	36.59	None	No	0.0007022	Param Inter 1 of 2
Manganese (mg/L)	MW-21	3.291	n/a	7/30/2024	0.275	No	41	MW-18R,MW-7	0.974	1.158	36.59	None	No	0.0007022	Param Inter 1 of 2
Molybdenum (mg/L)	MW-17	0.02949	n/a	7/30/2024	0.00239	No	42	MW-18R,MW-7	0.008504	0.01049	47.62	None	No	0.0007022	Param Inter 1 of 2
Nitrogen, Ammonia (mg/L)	**MW-11**	**0.3085**	**n/a**	**7/30/2024**	**6.39**	**Yes**	**132**	**MW-18R,MW-7**	**0.09256**	**0.108**	**60.61**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
pH (S.U.)	MW-11	7.457	6.435	7/30/2024	6.54	No	131	MW-18R,MW-7	6.946	0.2555	0	None	No	0.0003511	Param Inter 1 of 2
pH (S.U.)	MW-15	7.457	6.435	7/30/2024	6.95	No	131	MW-18R,MW-7	6.946	0.2555	0	None	No	0.0003511	Param Inter 1 of 2
pH (S.U.)	MW-16	7.457	6.435	7/30/2024	6.5	No	131	MW-18R,MW-7	6.946	0.2555	0	None	No	0.0003511	Param Inter 1 of 2
pH (S.U.)	MW-17	7.457	6.435	7/30/2024	7.11	No	131	MW-18R,MW-7	6.946	0.2555	0	None	No	0.0003511	Param Inter 1 of 2
pH (S.U.)	TW-2	7.457	6.435	7/30/2024	6.96	No	131	MW-18R,MW-7	6.946	0.2555	0	None	No	0.0003511	Param Inter 1 of 2
pH (S.U.)	MW-21	7.457	6.435	7/30/2024	6.6	No	131	MW-18R,MW-7	6.946	0.2555	0	None	No	0.0003511	Param Inter 1 of 2
Selenium (mg/L)	TW-2	0.1015	n/a	7/30/2024	0.0147	No	42	MW-18R,MW-7	0.03335	0.03407	40.48	None	No	0.0007022	Param Inter 1 of 2
Selenium (mg/L)	MW-21	0.1015	n/a	7/30/2024	0.00649	No	42	MW-18R,MW-7	0.03335	0.03407	40.48	None	No	0.0007022	Param Inter 1 of 2
Sodium (mg/L)	**MW-11**	**76.88**	**n/a**	**7/30/2024**	**82.7**	**Yes**	**42**	**MW-18R,MW-7**	**57.36**	**9.758**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Sodium (mg/L)	MW-15	76.88	n/a	7/30/2024	51	No	42	MW-18R,MW-7	57.36	9.758	0	None	No	0.0007022	Param Inter 1 of 2
Sodium (mg/L)	MW-16	76.88	n/a	7/30/2024	70	No	42	MW-18R,MW-7	57.36	9.758	0	None	No	0.0007022	Param Inter 1 of 2
Sodium (mg/L)	MW-17	76.88	n/a	7/30/2024	60.2	No	42	MW-18R,MW-7	57.36	9.758	0	None	No	0.0007022	Param Inter 1 of 2
Sodium (mg/L)	**TW-2**	**76.88**	**n/a**	**7/30/2024**	**81.7**	**Yes**	**42**	**MW-18R,MW-7**	**57.36**	**9.758**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Sodium (mg/L)	**MW-21**	**76.88**	**n/a**	**7/30/2024**	**90.8**	**Yes**	**42**	**MW-18R,MW-7**	**57.36**	**9.758**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Specific Conductance (umhos/cm)	MW-11	1423	n/a	7/30/2024	1296	No	131	MW-18R,MW-7	1023	200.1	0	None	No	0.0007022	Param Inter 1 of 2
Specific Conductance (umhos/cm)	MW-15	1423	n/a	7/30/2024	897.6	No	131	MW-18R,MW-7	1023	200.1	0	None	No	0.0007022	Param Inter 1 of 2
Specific Conductance (umhos/cm)	**MW-16**	**1423**	**n/a**	**7/30/2024**	**1493**	**Yes**	**131**	**MW-18R,MW-7**	**1023**	**200.1**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Specific Conductance (umhos/cm)	MW-17	1423	n/a	7/30/2024	1353	No	131	MW-18R,MW-7	1023	200.1	0	None	No	0.0007022	Param Inter 1 of 2
Specific Conductance (umhos/cm)	TW-2	1423	n/a	7/30/2024	1278	No	131	MW-18R,MW-7	1023	200.1	0	None	No	0.0007022	Param Inter 1 of 2
Specific Conductance (umhos/cm)	**MW-21**	**1423**	**n/a**	**7/30/2024**	**2009**	**Yes**	**131**	**MW-18R,MW-7**	**1023**	**200.1**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Strontium (mg/L)	MW-11	0.7822	n/a	7/30/2024	0.578	No	41	MW-18R,MW-7	0.464	0.1591	0	None	No	0.0007022	Param Inter 1 of 2
Strontium (mg/L)	MW-15	0.7822	n/a	7/30/2024	0.426	No	41	MW-18R,MW-7	0.464	0.1591	0	None	No	0.0007022	Param Inter 1 of 2
Strontium (mg/L)	MW-16	0.7822	n/a	7/30/2024	0.61	No	41	MW-18R,MW-7	0.464	0.1591	0	None	No	0.0007022	Param Inter 1 of 2
Strontium (mg/L)	MW-17	0.7822	n/a	7/30/2024	0.66	No	41	MW-18R,MW-7	0.464	0.1591	0	None	No	0.0007022	Param Inter 1 of 2
Strontium (mg/L)	TW-2	0.7822	n/a	7/30/2024	0.46	No	41	MW-18R,MW-7	0.464	0.1591	0	None	No	0.0007022	Param Inter 1 of 2

Fall Control Limit

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP Printed 9/25/2024, 4:33 PM

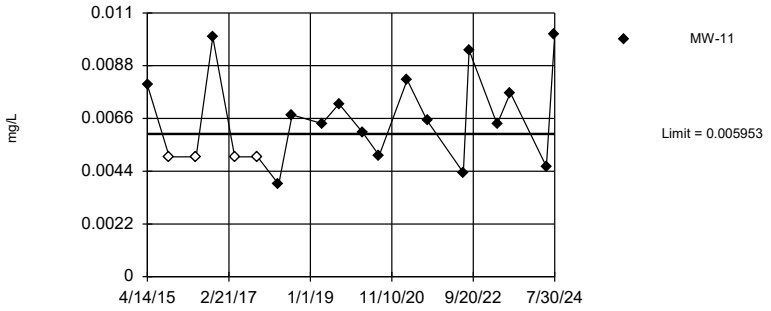
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Strontium (mg/L)	MW-21	0.7822	n/a	7/30/2024	0.724	No	41	MW-18R,MW-7	0.464	0.1591	0	None	No	0.0007022	Param Inter 1 of 2
Sulfate (mg/L)	MW-11	224.8	n/a	7/30/2024	22.2	No	126	MW-18R,MW-7	66.09	79.38	0	None	No	0.0007022	Param Inter 1 of 2
Sulfate (mg/L)	MW-15	224.8	n/a	7/30/2024	125.5	No	126	MW-18R,MW-7	66.09	79.38	0	None	No	0.0007022	Param Inter 1 of 2
Sulfate (mg/L)	**MW-16**	**224.8**	**n/a**	**7/30/2024**	**449**	**Yes**	**126**	**MW-18R,MW-7**	**66.09**	**79.38**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-17**	**224.8**	**n/a**	**7/30/2024**	**354**	**Yes**	**126**	**MW-18R,MW-7**	**66.09**	**79.38**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Sulfate (mg/L)	**TW-2**	**224.8**	**n/a**	**7/30/2024**	**379**	**Yes**	**126**	**MW-18R,MW-7**	**66.09**	**79.38**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-21**	**224.8**	**n/a**	**7/30/2024**	**553**	**Yes**	**126**	**MW-18R,MW-7**	**66.09**	**79.38**	**0**	**None**	**No**	**0.0007022**	**Param Inter 1 of 2**

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-11

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.002247, Std. Dev.=0.001853, n=41, 65.85% NDs (user selected parametric test despite non-detects). Normality test was disabled. Assumes 4 future values. Kappa overridden to 2.

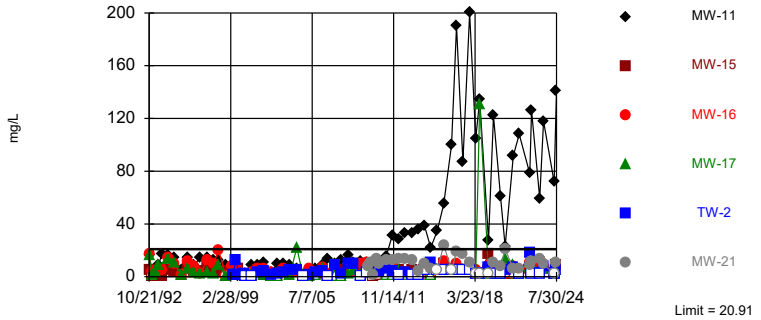
Constituent: Arsenic Analysis Run 9/25/2024 4:31 PM View: 2024AWQR-Control Limit-Fall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-11

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=7.63, Std. Dev.=6.638, n=126, 28.57% NDs. Normality test was disabled. Comparing 6 points to limit. Kappa overridden to 2.

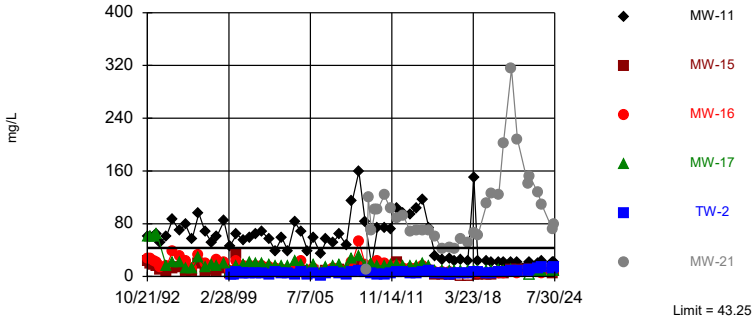
Constituent: Chemical Oxygen Demand Analysis Run 9/25/2024 4:31 PM View: 2024AWQR-Control Limit-
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-21

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=17.73, Std. Dev.=12.76, n=132, 0.7576% NDs. Normality test was disabled. Comparing 6 points to limit. Kappa overridden to 2.

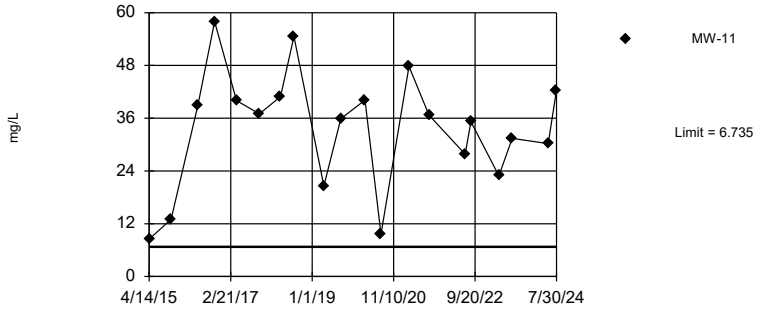
Constituent: Chloride Analysis Run 9/25/2024 4:32 PM View: 2024AWQR-Control Limit-Fall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Exceeds Limit: MW-11

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=1.203, Std. Dev.=2.766, n=42, 30.95% NDs. Normality test was disabled. Assumes 4 future values. Kappa overridden to 2.

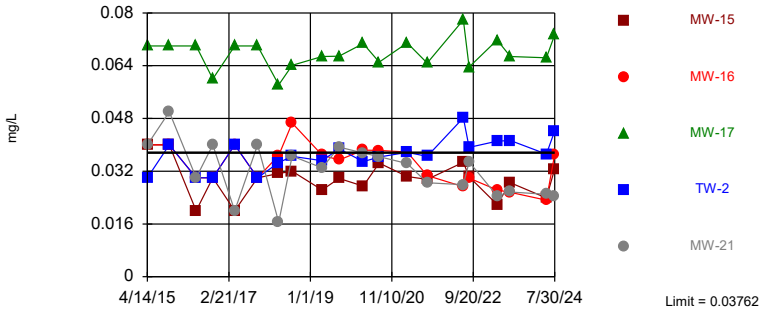
Constituent: Iron Analysis Run 9/25/2024 4:32 PM View: 2024AWQR-Control Limit-Fall
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Exceeds Limit: MW-17, TW-2

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.02877, Std. Dev.=0.004426, n=41. Normality test was disabled. Comparing 5 points to limit. Kappa overridden to 2.

Constituent: Lithium Analysis Run 9/25/2024 4:32 PM View: 2024AWQR-Control Limit-Fall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

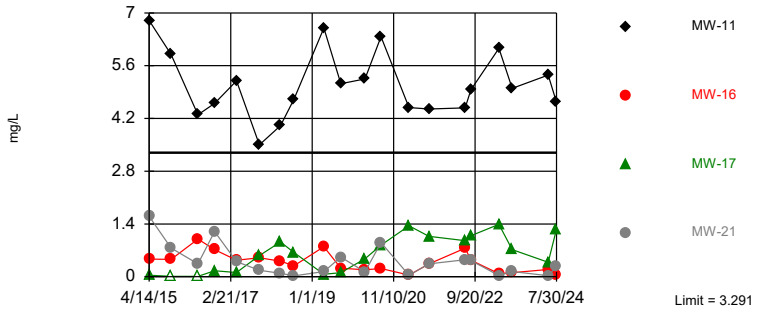
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Exceeds Limit: MW-11

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.974, Std. Dev.=1.158, n=41, 36.59% NDs. Normality test was disabled. Comparing 4 points to limit. Assumes 1 future value. Kappa overridden to 2.

Constituent: Manganese Analysis Run 9/25/2024 4:32 PM View: 2024AWQR-Control Limit-Fall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

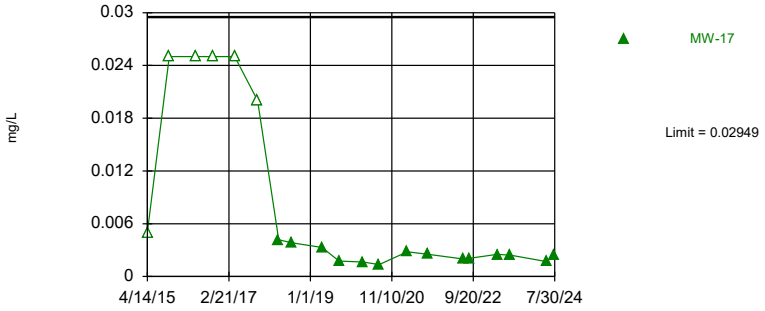
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.008504, Std. Dev.=0.01049, n=42, 47.62% NDs. Normality test was disabled. Assumes 4 future values. Kappa overridden to 2.

Constituent: Molybdenum Analysis Run 9/25/2024 4:32 PM View: 2024AWQR-Control Limit-Fall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

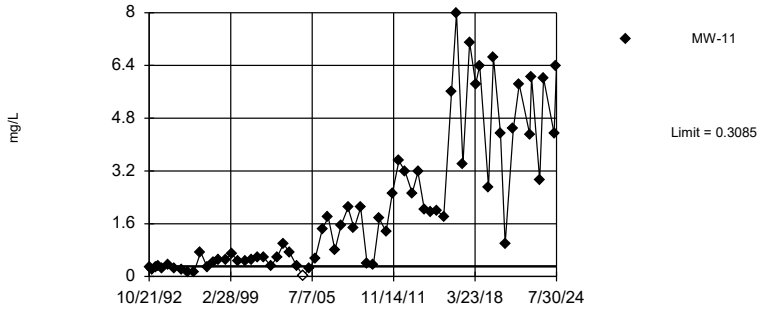
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Exceeds Limit: MW-11

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.09256, Std. Dev.=0.108, n=132, 60.61% NDs (user selected parametric test despite non-detects). Normality test was disabled. Assumes 4 future values. Kappa overridden to 2.

Constituent: Nitrogen, Ammonia Analysis Run 9/25/2024 4:32 PM View: 2024AWQR-Control Limit-Fall

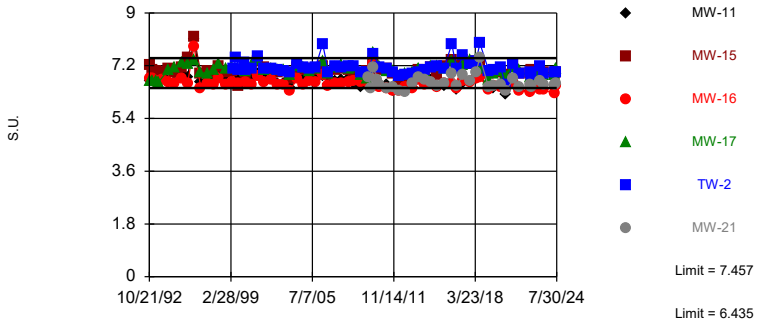
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Within Limits

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=6.946, Std. Dev.=0.2555, n=131. Normality test was disabled. Comparing 6 points to limit. Kappa overridden to 2.

Constituent: pH Analysis Run 9/25/2024 4:32 PM View: 2024AWQR-Control Limit-Fall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

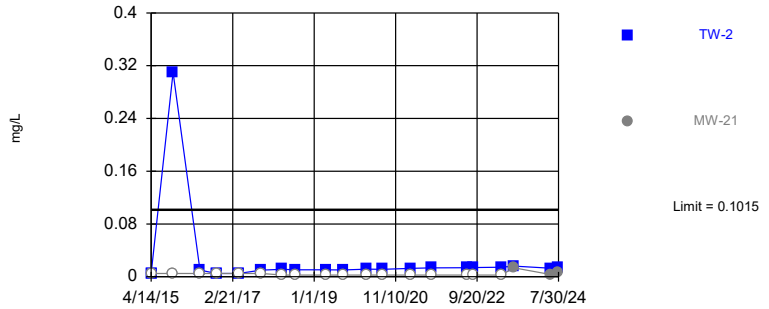
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.03335, Std. Dev.=0.03407, n=42, 40.48% NDs. Normality test was disabled. Comparing 2 points to limit. Assumes 3 future values. Kappa overridden to 2.

Constituent: Selenium Analysis Run 9/25/2024 4:32 PM View: 2024AWQR-Control Limit-Fall

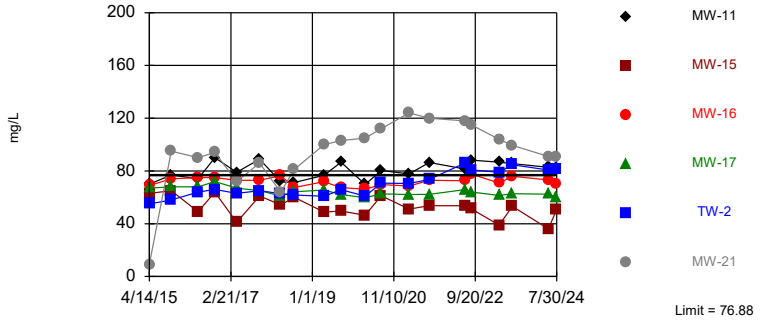
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Exceeds Limit: MW-11, TW-2, MW-21

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=57.36, Std. Dev.=9.758, n=42. Normality test was disabled. Comparing 6 points to limit. Kappa overridden to 2.

Constituent: Sodium Analysis Run 9/25/2024 4:32 PM View: 2024AWQR-Control Limit-Fall

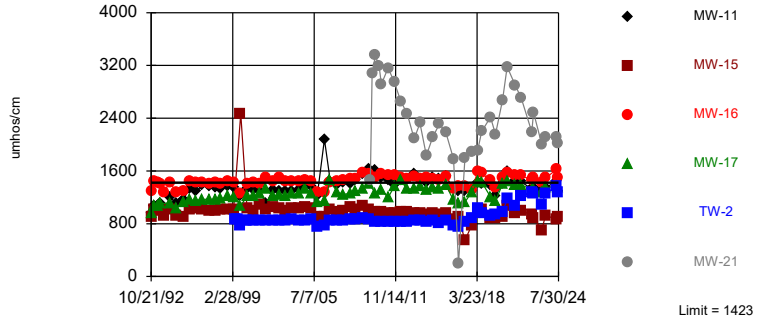
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Exceeds Limit: MW-16, MW-21

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=1023, Std. Dev.=200.1, n=131. Normality test was disabled. Comparing 6 points to limit. Kappa overridden to 2.

Constituent: Specific Conductance Analysis Run 9/25/2024 4:32 PM View: 2024AWQR-Control Limit-Fall

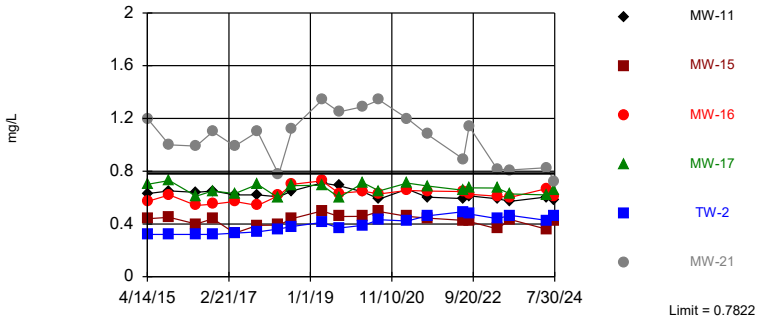
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.464, Std. Dev.=0.1591, n=41. Normality test was disabled. Comparing 6 points to limit. Kappa overridden to 2.

Constituent: Strontium Analysis Run 9/25/2024 4:32 PM View: 2024AWQR-Control Limit-Fall

Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

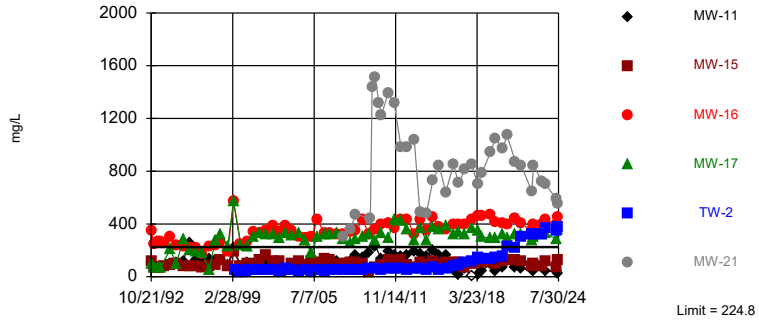
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Exceeds Limit: MW-16, MW-17, TW-2, MW-21

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=66.09, Std. Dev.=79.38, n=126. Normality test was disabled. Comparing 6 points to limit. Kappa overridden to 2.

Constituent: Sulfate Analysis Run 9/25/2024 4:32 PM View: 2024AWQR-Control Limit-Fall

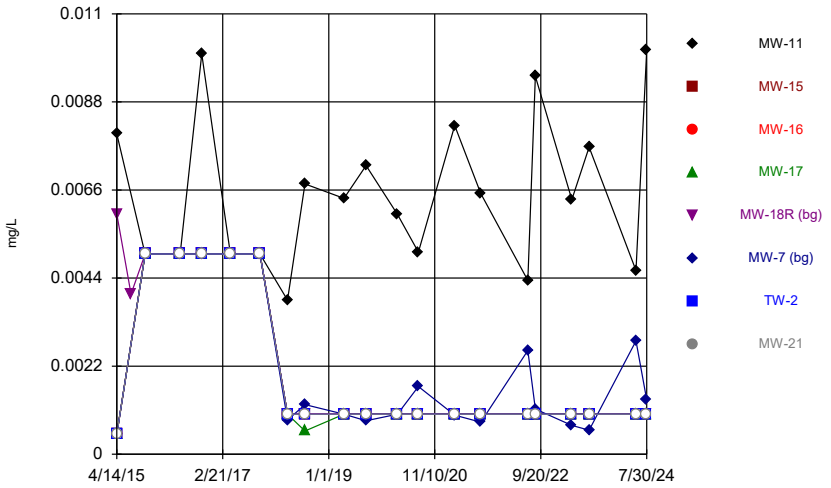
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Attachment C

Time Series Graphs

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

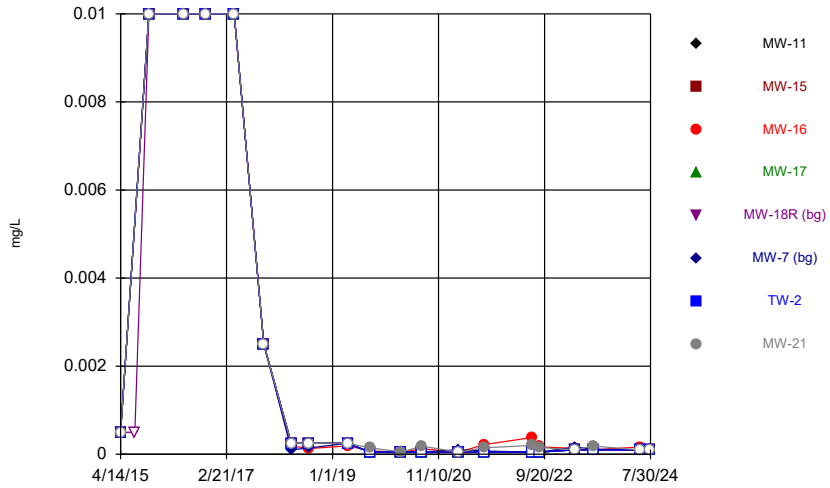
Time Series



Constituent: Arsenic Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

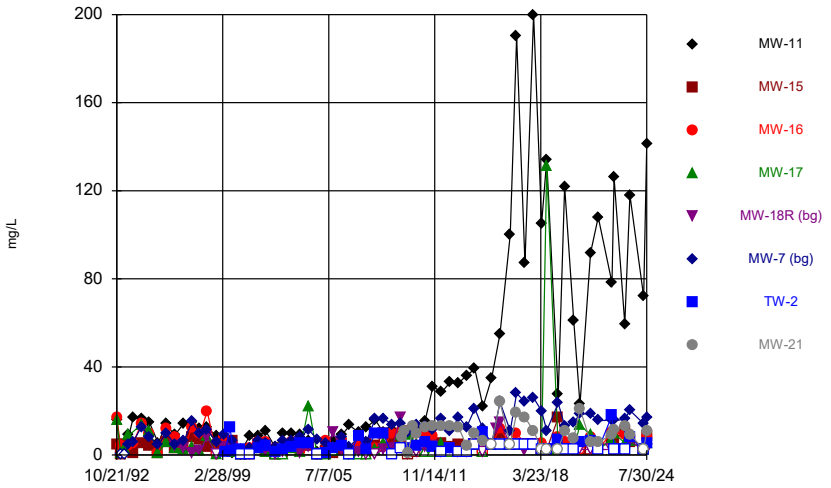
Time Series



Constituent: Cadmium Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

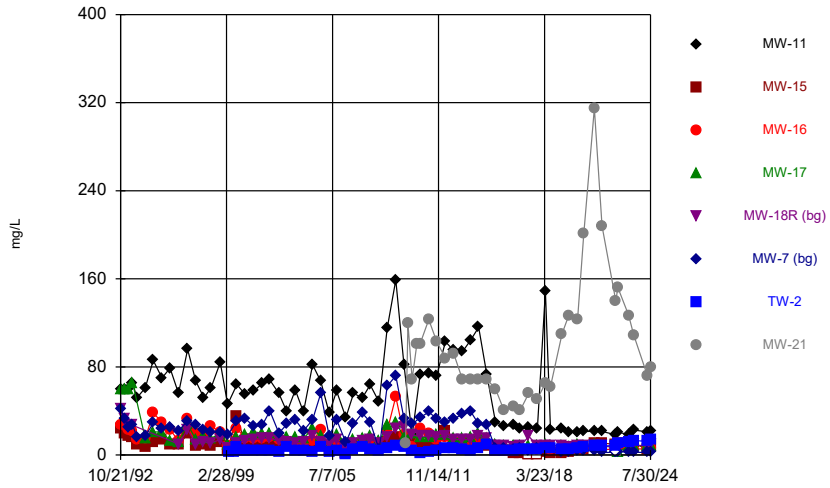
Time Series



Constituent: Chemical Oxygen Demand Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

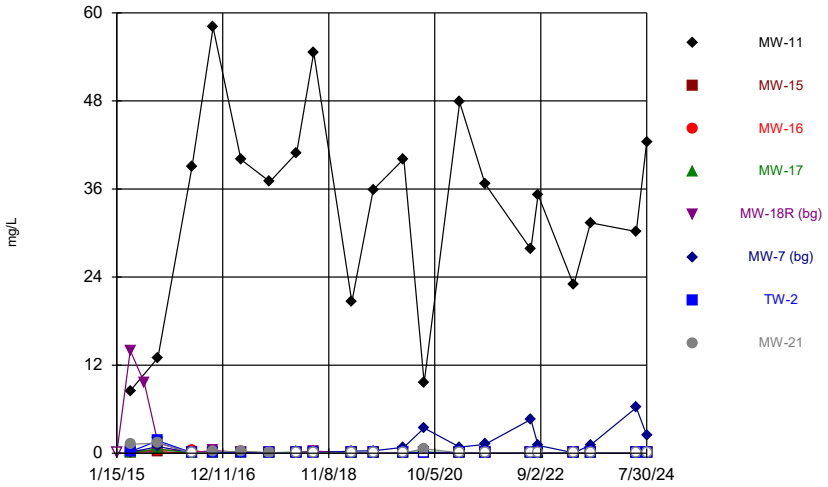
Time Series



Constituent: Chloride Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

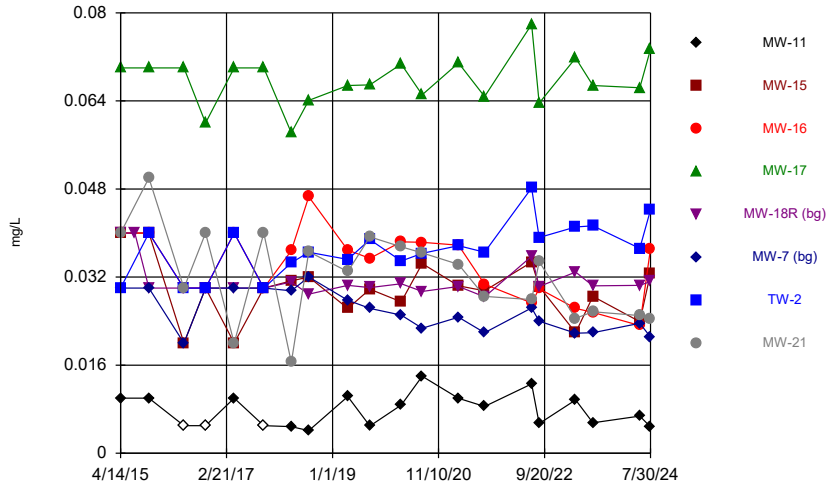
Time Series



Constituent: Iron Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

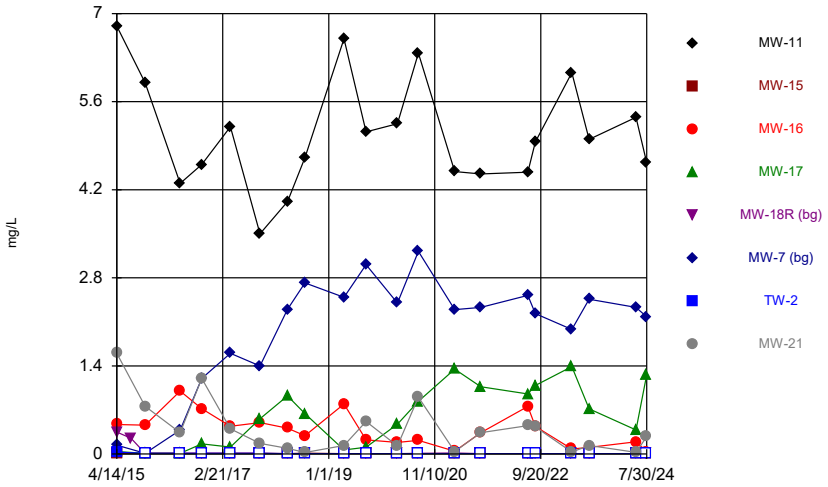
Time Series



Constituent: Lithium Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

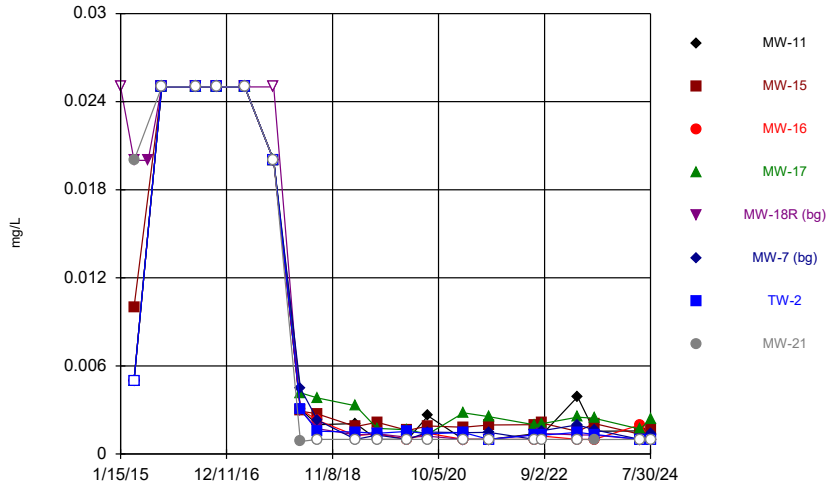
Time Series



Constituent: Manganese Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

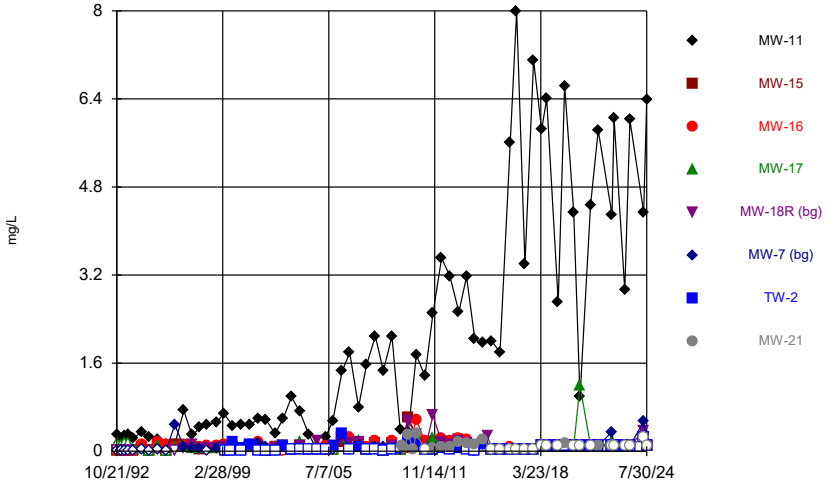
Time Series



Constituent: Molybdenum Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

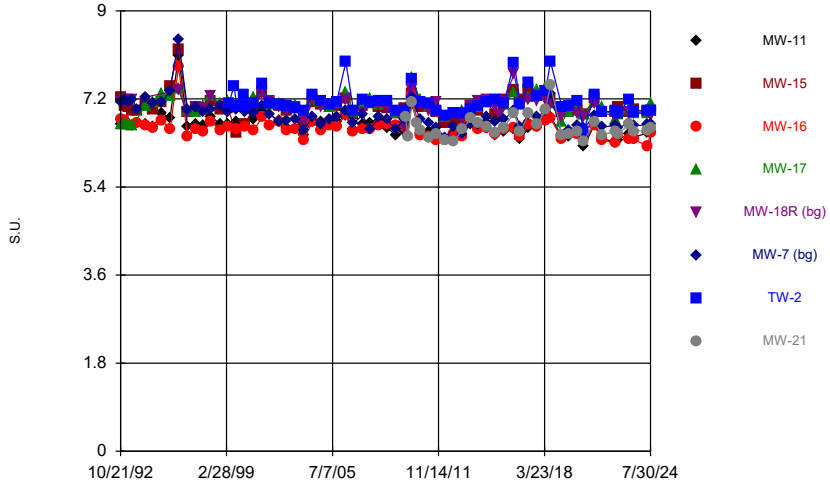
Time Series



Constituent: Nitrogen, Ammonia Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

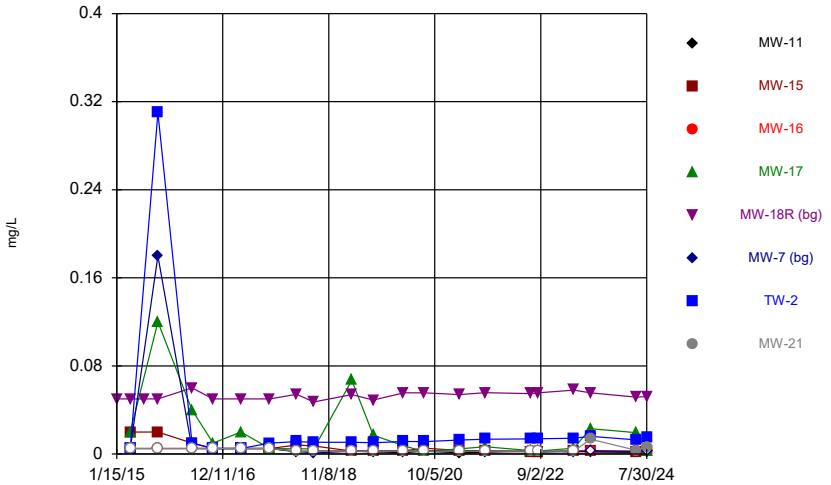
Time Series



Constituent: pH Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

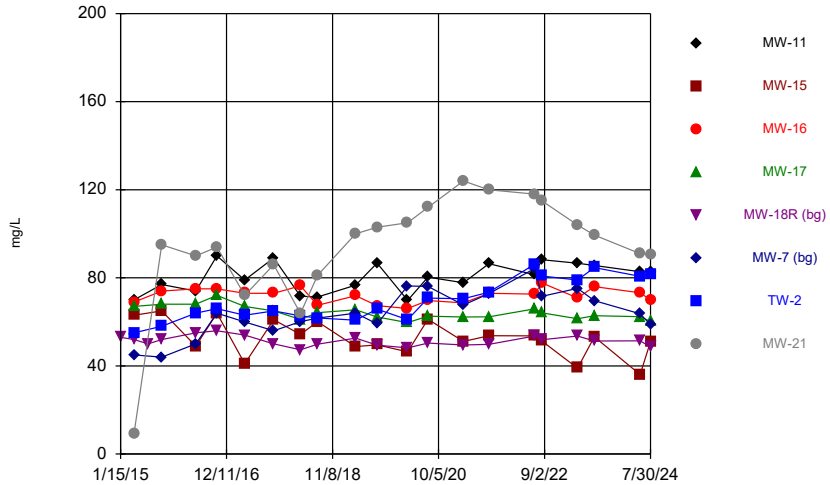
Time Series



Constituent: Selenium Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

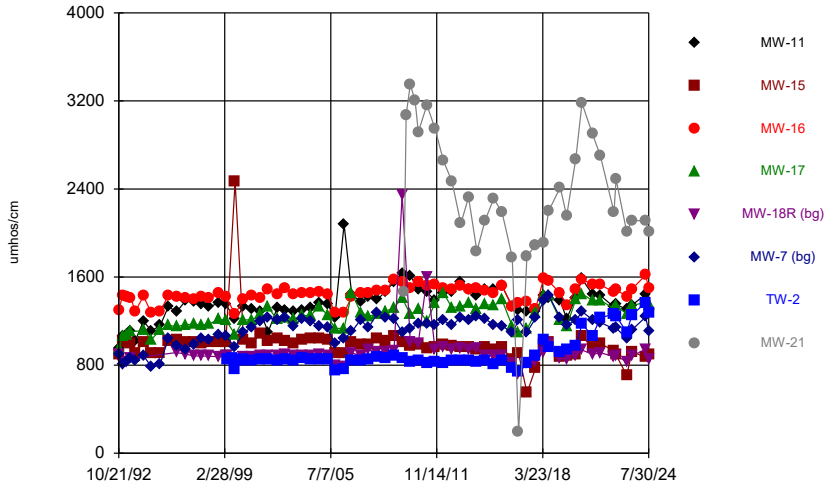
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Time Series



Constituent: Sodium Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

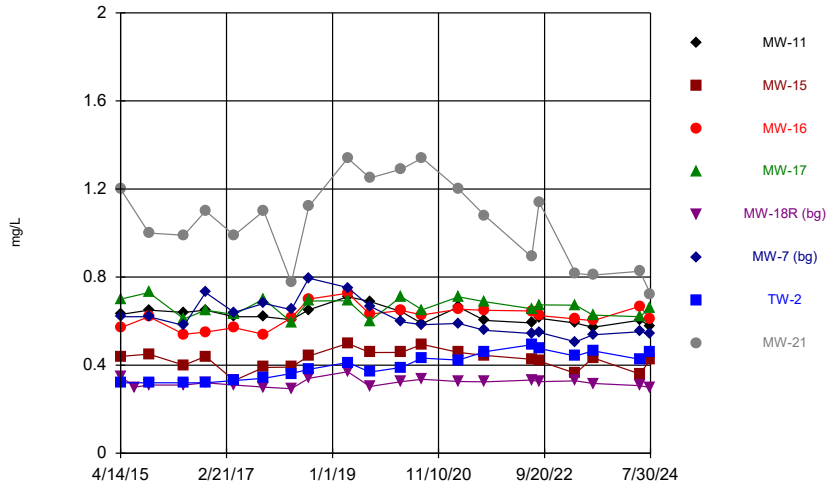
Time Series



Constituent: Specific Conductance Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

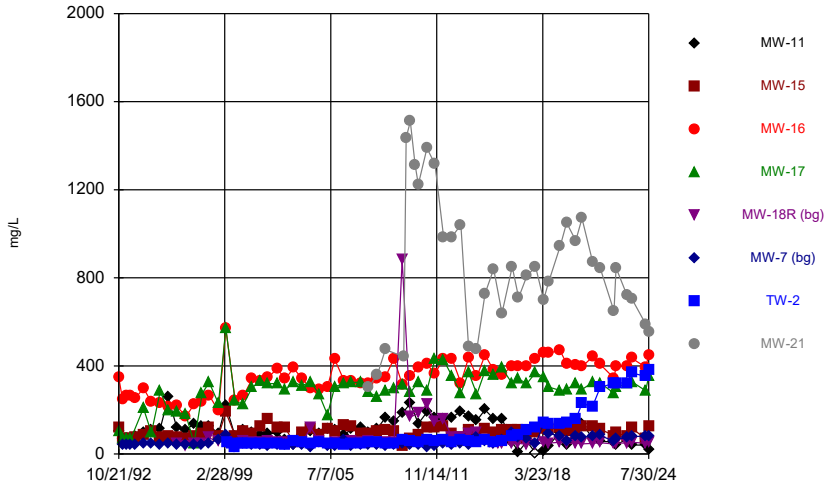
Time Series



Constituent: Strontium Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Sulfate Analysis Run 9/25/2024 2:32 PM View: 2024AWQR - Time Series
Climax Molybdenum Company Landfill Client: SCS Engineers Data: CMOLY Sanitas HMSP

Appendix E

Mann-Kendall Trend Table

Monitoring Well	Constituent Name	Calculated Statistic		
		Decreasing Trend	Stable Trend	Increasing Trend
MW-7	Arsenic		2	
	Cadmium		2	
	Chemical Oxygen Demand		1	
	Iron		8	
	Lithium	-13		
	Manganese		-5	
	Nitrogen, Ammonia		8	
	pH		2	
	Sodium		-12	
	Specific Conductance		-10	
	Strontium		-11	
	Sulfate		2	
MW-11	Arsenic		2	
	Chemical Oxygen Demand		4	
	Chloride		1	
	Iron		-6	
	Manganese		12	
	Molybdenum		9	
	Nitrogen, Ammonia		6	
	pH		8	
	Sodium		0	
	Specific Conductance		-12	
	Strontium	-14		
	Sulfate	-19		
MW-15	Chemical Oxygen Demand		9	
	Chloride		-6	
	Lithium		-6	
	Molybdenum		-4	
	pH		-5	
	Sodium		-12	
	Specific Conductance	-14		
	Strontium	-16		
	Sulfate		-4	
MW-16	Cadmium		-8	
	Chemical Oxygen Demand		-5	
	Chloride		4	
	Lithium	-14		
	Manganese		-6	
	pH		-4	
	Sodium		2	
	Specific Conductance		-2	
	Strontium	-13		
	Sulfate		2	
MW-17	Chemical Oxygen Demand		-9	
	Chloride		2	
	Lithium		2	
	Manganese		-6	
	Molybdenum		-12	
	pH		-1	
	Selenium		0	
	Sodium		-6	
	Specific Conductance		-2	
	Strontium	-18		
	Sulfate		4	

Monitoring Well	Constituent Name	Calculated Statistic		
		Decreasing Trend	Stable Trend	Increasing Trend
MW-18R	Chemical Oxygen Demand		3	
	Chloride		12	
	Lithium		9	
	Manganese		-11	
	pH		-9	
	Selenium		-4	
	Sodium		-1	
	Specific Conductance		-6	
	Strontium	-16		
	Sulfate		6	
MW-21	Cadmium		-1	
	Chemical Oxygen Demand		8	
	Chloride	-24		
	Lithium	-17		
	Manganese		-6	
	pH		5	
	Selenium			14
	Sodium	-28		
	Specific Conductance	-20		
	Strontium	-20		
	Sulfate	-20		
TW-2	Chemical Oxygen Demand		-2	
	Chloride			22
	Lithium		8	
	pH		-3	
	Selenium			16
	Sodium		10	
	Specific Conductance			16
	Strontium		-2	
	Sulfate			24

Appendix F

Leachate Control System Performance Evaluation Report

Table F1
Leachate Management Summary
2024 Leachate Control System Performance Evaluation Report
Climax Molybdenum Company Industrial Landfill
Permit No.56-SDP-06-80P

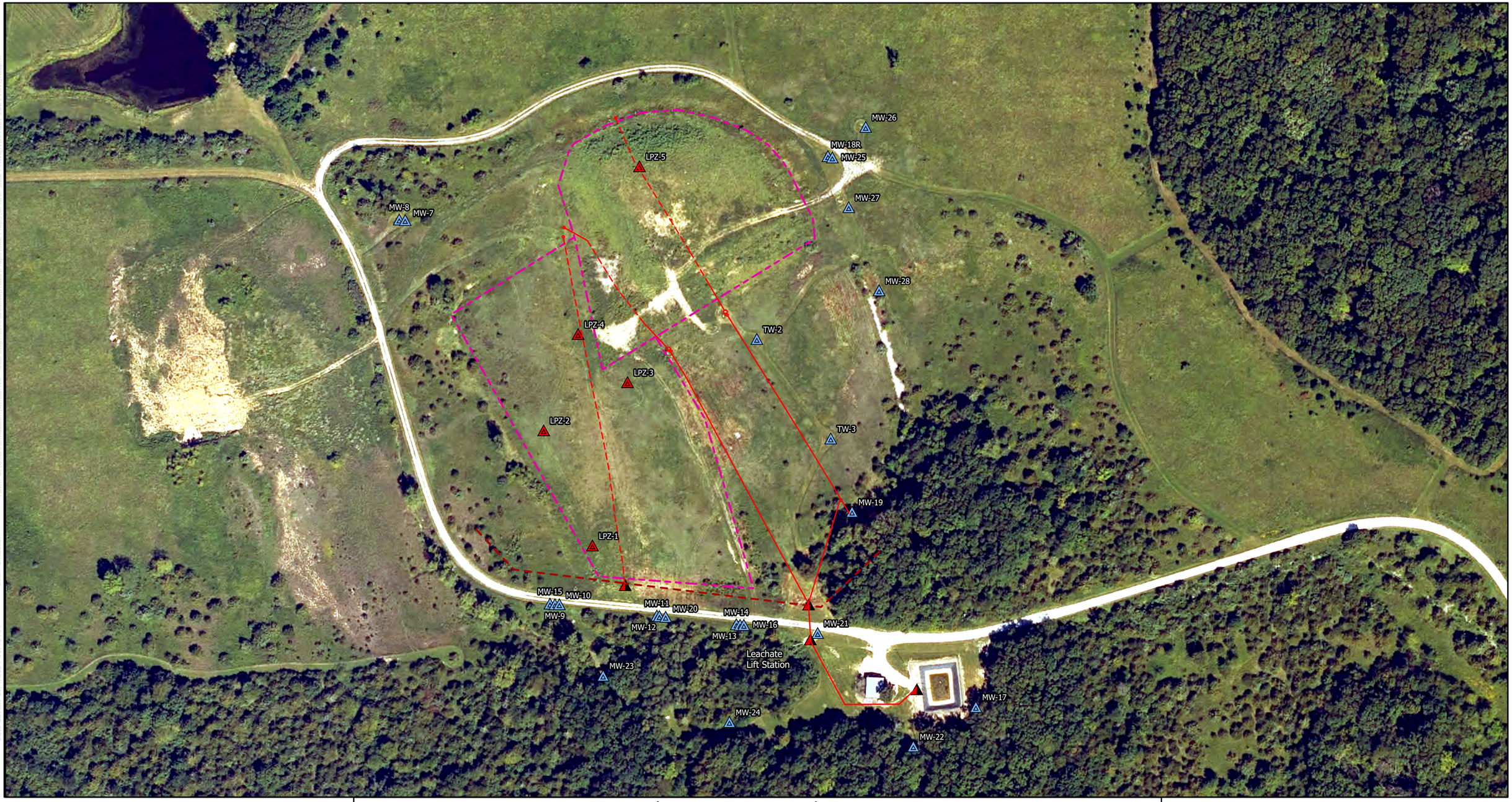
Date of Measurement	Column in Piezometer (ft)					Discharge to Treatment Ponds (gal)	Precipitation (in)
	LPZ-1	LPZ-2	LPZ-3	LPZ-4	LPZ-5		
10/1/2023	-	-	-	-	0.79	56,448	2.60
11/1/2023	-	-	-	-	0.85	4,403	0.55
12/1/2023	-	-	-	-	0.77	54,583	2.23
1/1/2024	-	-	-	-	1.32	73,585	2.5
2/1/2024	-	-	-	-	1.58	86,345	0.11
3/1/2024	-	-	-	-	1.23	94,276	5.56
4/1/2024	-	-	-	-	3.34	144,839	7.01
5/23/2024	4.26	12.24	9.99	17.79	2.10	60,643	3.03
6/1/2024	-	-	-	-	1.20	7,856	2.98
7/30/2024	5.04	11.41	9.57	12.04	0.33	78,523	8.31
8/1/2024	-	-	-	-	0.43	25,748	2.56
9/1/2024	-	-	-	-	0.19	4,300	0.61
Reporting Period Total						691,549	38.05

Notes:

1) Leachate column thicknesses for the reporting period generally remained consistent with historical measurements. However, new maximum leachate column thicknesses was measured on LPZ-4 on 5/23/2024.
2) Historical leachate levels and graphs are provided in Attachment A.
3) Precipitation data for October 2023 - September 2024 obtained from weather.gov.
4) NM - Not Measured
5) Leachate head levels at LPZ-5 exceeding 12 inches have been regularly measured and acknowledged by the DNR. Permit special provision 3.b. requires a more efficient leachate collection layer for future cells. The updated design will be submitted to the DNR by December 31, 2024.

Comments:

Reporting Period: October 2023 - September 2024.
Approved Changes to Leachate Collection System: None.
Proposed Changes to Leachate Collection System: None.
Maintenance Performed on Leachate Collection System: Leachate lines were jetted in December 2023 and April 2024.
Last Date of Cleaning and Inspection: April 2024.
Date of Next Cleaning and Inspection: Anticipated quarterly to semiannually in 2025.
Volume of Leachate Recirculated: Not Applicable.
Volume of Leachate Treated Off-Site: 691,549 gallons were transported to the Climax Molybdenum Co. treatment ponds.
Leachate Quality Testing Results: Leachate quality testing results for the reporting period are provided in Attachment B.



Leachate Control System

Legend

- Approximate Monitoring Well Location
- Approximate Leachate Monitoring Location
- Approximate Manhole Location
- Solid Leachate Pipe
- Perforated Leachate Pipe
- Approximate Toe Drain Location
- Approximate Waste Boundary
- Approximate Property Boundary

Climax Molybdenum
Industrial Landfill
Argyle, Iowa
Project No: 27224048.00
Drawing Date: October 2024

Figure 1

N
W E
S

0 80 160 320 480
Feet

SCS ENGINEERS
environmental consultants and contractors

Attachment A

Historical Leachate Level Graphs

Historical Leachate Level Measurements
Climax Molybdenum Company Industrial Landfill

Well #	LPZ-1		LPZ-2		LPZ-3		LPZ-4	
Drilled Well Depth (ft)[3]	15.35		17.85		15.35		17.80	
Bottom of Well (ft ASL)[3]	641.42		642.79		644.68		644.75	
	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]
5/15/1991	4.80	646.22	7.75	650.54	4.05	648.73	7.40	652.15
5/28/1991	5.20	646.62	9.05	651.84	4.85	649.53	7.65	652.40
6/13/1991	5.50	646.92	9.90	652.69	4.90	649.58	7.70	652.45
6/26/1991	5.55	646.97	10.55	653.34	4.90	649.58	7.20	651.95
7/15/1991	5.25	646.67	10.45	653.24	4.30	648.98	6.75	651.50
7/29/1991	5.20	646.62	10.40	653.19	4.10	648.78	6.70	651.45
8/7/1991	6.00	647.42	10.20	652.99	4.15	648.83	6.65	651.40
8/14/1991	6.15	647.57	9.90	652.69	4.05	648.73	6.65	651.40
8/15/1991	6.15	647.57	9.85	652.64	4.10	648.78	6.60	651.35
8/28/1991	5.85	647.27	9.05	651.84	3.60	648.28	6.10	650.85
9/16/1991	5.60	647.02	8.45	651.24	3.35	648.03	5.60	650.35
10/2/1991	5.45	646.87	7.05	649.84	3.15	647.83	5.63	650.38
10/16/1991	5.10	646.52	6.50	649.29	3.05	647.73	5.52	650.27
10/31/1991	4.82	646.24	5.88	648.67	2.67	647.35	5.38	650.13
11/15/1991	4.65	646.07	5.34	648.13	2.90	647.58	10.07	654.82
12/6/1991	4.35	645.77	5.38	648.17	3.08	647.76	10.87	655.62
12/19/1991	4.07	645.49	5.39	648.18	3.00	647.68	9.97	654.72
1/7/1992	4.21	645.63	6.43	649.22	3.65	648.33	10.07	654.82
2/18/1992	4.03	645.45	6.77	649.56	3.88	648.56	9.63	654.38
3/19/1992	3.91	645.33	7.92	650.71	4.33	649.01	9.76	654.51
4/15/1992	3.95	645.37	8.42	651.21	4.73	649.41	9.51	654.26
5/19/1992	4.15	645.57	9.81	652.60	4.75	649.43	9.20	653.95
6/16/1992	4.44	645.86	10.46	653.25	4.76	649.44	8.85	653.60
7/28/1992	4.22	645.64	9.79	652.58	4.57	649.25	8.76	653.51
8/19/1992	3.97	645.39	8.88	651.67	4.29	648.97	7.68	652.43
9/9/1992	3.80	645.22	9.53	652.32	4.21	648.89	10.46	655.21
9/23/1992	2.87	644.29	7.93	650.72	4.29	648.97	7.46	652.21
10/30/1992	2.15	643.57	5.54	648.33	2.63	647.31	5.23	649.98
11/20/1992	2.92	644.34	6.79	649.58	3.99	648.67	10.30	655.05
12/16/1992	3.09	644.51	6.91	649.70	4.59	649.27	12.00	656.75
1/19/1993	1.97	643.39	5.29	648.08	4.12	648.80	8.30	653.05
2/23/1993	2.98	644.40	7.03	649.82	4.59	649.27	10.31	655.06
3/16/1993	3.50	644.92	7.87	650.66	5.06	649.74	12.48	657.23
4/13/1993	4.39	645.81	9.12	651.91	5.64	650.32	10.98	655.73
5/11/1993	3.85	645.27	8.57	651.36	5.44	650.12	10.32	655.07
6/8/1993	4.95	646.37	11.53	654.32	6.66	651.34	12.28	657.03
7/13/1993	5.01	646.43	11.99	654.78	7.09	651.77	11.85	656.60
8/11/1993	5.39	646.81	11.99	654.78	7.30	651.98	11.60	656.35
9/28/1993	5.52	646.94	10.85	653.64	7.36	652.04	11.62	656.37
10/13/1993	5.51	646.93	10.18	652.97	6.89	651.57	10.23	654.98
11/3/1993	5.37	646.79	9.50	652.29	6.74	651.42	9.99	654.74
12/15/1993	4.87	646.29	8.35	651.14	6.44	651.12	10.86	655.61
1/13/1994	4.65	646.07	8.02	650.81	5.95	650.63	9.24	653.99
2/16/1994	4.13	645.55	7.32	650.11	5.27	649.95	8.50	653.25
3/10/1994	4.54	645.96	7.84	650.63	6.16	650.84	9.76	654.51
4/12/1994	5.83	647.25	9.77	652.56	6.77	651.45	10.73	655.48
5/13/1994	5.10	646.52	10.81	653.60	6.87	651.55	10.88	655.63
6/6/1994	7.07	648.49	11.96	654.75	7.24	651.92	11.32	656.07
7/20/1995	5.81	647.23	12.20	654.99	6.15	650.83	9.99	654.74
8/31/1995	5.40	646.82	12.41	655.20	6.32	651.00	8.51	653.26
10/10/1995	4.68	646.10	13.06	655.85	7.03	651.71	9.01	653.76

Historical Leachate Level Measurements
Climax Molybdenum Company Industrial Landfill

Well #	LPZ-1		LPZ-2		LPZ-3		LPZ-4	
Drilled Well Depth (ft)[3]	15.35		17.85		15.35		17.80	
Bottom of Well (ft ASL)[3]	641.42		642.79		644.68		644.75	
	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]
11/15/1995	4.16	645.58	12.41	655.20	6.84	651.52	8.47	653.22
12/12/1995	3.90	645.32	11.71	654.50	6.25	650.93	7.94	652.69
1/3/1996	4.29	645.71	11.58	654.37	6.25	650.93	7.95	652.70
2/23/1996	3.87	645.29	11.17	653.96	6.60	651.28	7.74	652.49
3/14/1996	4.86	646.28	10.71	653.50	6.79	651.47	7.64	652.39
4/2/1996	4.40	645.82	10.77	653.56	6.90	651.58	7.67	652.42
5/14/1996	5.26	646.68	10.85	653.64	7.33	652.01	8.02	652.77
6/13/1996	5.79	647.21	11.51	654.30	7.89	652.57	8.69	653.44
7/11/1996	6.11	647.53	11.71	654.50	6.88	651.56	8.14	652.89
8/15/1996	6.18	647.60	12.13	654.92	6.84	651.52	8.13	652.88
9/6/1996	6.09	647.51	12.25	655.04	6.75	651.43	8.08	652.83
10/27/1996	6.84	648.26	11.46	654.25	6.97	651.65	7.75	652.50
11/21/1996	6.64	648.06	11.13	653.92	5.75	650.43	7.50	652.25
12/17/1996	6.34	647.76	10.70	653.49	5.52	650.20	7.34	652.09
1/27/1997	5.81	647.23	10.20	652.99	5.20	649.88	6.81	651.56
2/20/1997	5.59	647.01	9.67	652.46	4.68	649.36	6.44	651.19
3/12/1997	6.16	647.58	9.60	652.39	4.82	649.50	6.82	651.57
4/24/1997	6.26	647.68	10.31	653.10	5.22	649.90	7.17	651.92
5/23/1997	6.78	648.20	10.47	653.26	5.30	649.98	6.86	651.61
6/24/1997	7.24	648.66	11.05	653.84	5.72	650.40	7.31	652.06
7/9/1997	7.26	648.68	11.13	653.92	5.82	650.50	7.27	652.02
8/20/1997	7.68	649.10	11.76	654.55	6.27	650.95	7.69	652.44
9/24/1997	7.31	648.73	11.63	654.42	6.00	650.68	7.50	652.25
10/19/1997	6.98	648.40	11.36	654.15	5.77	650.45	7.34	652.09
11/13/1997	6.81	648.23	11.09	653.88	5.66	650.34	7.39	652.14
12/2/1997	6.36	647.78	10.47	653.26	4.82	649.50	7.19	651.94
1/2/1998	6.50	647.92	10.37	653.16	5.64	650.32	7.57	652.32
2/4/1998	6.20	647.62	10.10	652.89	5.49	650.17	7.33	652.08
3/25/1998	6.86	648.28	10.61	653.40	6.30	650.98	8.15	652.90
4/17/1998	6.65	648.07	10.84	653.63	6.73	651.41	8.54	653.29
5/29/1998	6.97	648.39	11.54	654.33	7.17	651.85	8.57	653.32
6/9/1998	7.11	648.53	11.79	654.58	7.17	651.85	8.47	653.22
7/15/1998	7.25	648.67	12.21	655.00	7.45	652.13	8.85	653.60
8/12/1998	6.66	648.08	12.20	654.99	7.00	651.68	8.32	653.07
9/25/1998	6.46	647.88	12.08	654.87	6.60	651.28	8.19	652.94
10/13/1998	6.37	647.79	11.68	654.47	6.53	651.21	8.38	653.13
11/11/1998	6.32	647.74	11.45	654.24	6.84	651.52	8.62	653.37
12/21/1998	6.27	647.69	11.60	654.39	6.40	651.08	8.24	652.99
1/27/1999	6.16	647.58	10.59	653.38	6.12	650.80	8.17	652.92
2/9/1999	6.17	647.59	10.39	653.18	6.27	650.95	8.54	653.29
3/24/1999	6.56	647.98	10.81	653.60	6.72	651.40	8.52	653.27
4/22/1999	6.84	648.26	11.51	654.30	7.20	651.88	8.99	653.74
5/10/1999	6.88	648.30	11.51	654.30	7.24	651.92	8.95	653.70
6/10/1999	6.37	647.79	11.69	654.48	6.76	651.44	7.85	652.60
7/21/1999	5.51	646.93	11.63	654.42	6.24	650.92	7.29	652.04
8/5/1999	5.31	646.73	11.53	654.32	6.02	650.70	7.20	651.95
9/9/1999	4.88	646.30	11.05	653.84	5.46	650.14	6.87	651.62
10/13/1999	4.50	645.92	10.36	653.15	5.42	650.10	6.71	651.46
11/2/1999	4.46	645.88	10.05	652.84	5.10	649.78	6.67	651.42
12/2/1999	4.01	645.43	9.63	652.42	4.74	649.42	6.07	650.82
1/3/2000	3.93	645.35	9.51	652.30	4.67	649.35	5.48	650.23
2/9/2000	3.62	645.04	8.81	651.60	4.34	649.02	5.59	650.34
3/7/2000	4.14	645.56	8.63	651.42	4.72	649.40	9.89	654.64
4/12/2000	4.86	646.28	8.81	651.60	4.37	649.05	5.67	650.42
5/5/2000	3.79	645.21	9.35	652.14	4.54	649.22	5.71	650.46
6/9/2000	4.56	645.98	9.49	652.28	4.40	649.08	5.52	650.27
7/28/2000	3.76	645.18	10.11	652.90	4.88	649.56	6.03	650.78
8/9/2000	3.71	645.13	10.17	652.96	4.78	649.46	6.03	650.78
9/29/2000	3.26	644.68	9.69	652.48	5.18	649.86	5.55	650.30
10/18/2000	3.10	644.52	9.39	652.18	4.02	648.70	5.51	650.26

Historical Leachate Level Measurements
Climax Molybdenum Company Industrial Landfill

Well #	LPZ-1		LPZ-2		LPZ-3		LPZ-4	
Drilled Well Depth (ft)[3]	15.35		17.85		15.35		17.80	
Bottom of Well (ft ASL)[3]	641.42		642.79		644.68		644.75	
	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]
11/28/2000	2.98	644.40	8.81	651.60	3.96	648.64	5.47	650.22
12/19/2000	2.78	644.20	8.31	651.10	3.54	648.22	5.27	650.02
1/10/2001	2.58	644.00	7.85	650.64	3.38	648.06	4.97	649.72
2/26/2001	4.06	645.48	8.03	650.82	4.17	648.85	5.62	650.37
3/20/2001	4.48	645.90	8.49	651.28	4.28	648.96	5.67	650.42
4/20/2001	4.62	646.04	9.27	652.06	4.80	649.48	5.87	650.62
5/25/2001	5.02	646.44	9.73	652.52	5.12	649.80	7.07	651.82
6/6/2001	5.46	646.88	10.33	653.12	5.52	650.20	8.47	653.22
7/1/2001	5.42	646.84	10.71	653.50	5.70	650.38	9.25	654.00
8/1/2001	4.66	646.08	10.83	653.62	5.52	650.20	8.81	653.56
9/4/2001	4.52	645.94	10.77	653.56	5.44	650.12	8.73	653.48
10/2/2001	4.11	645.53	10.85	653.64	5.38	650.06	6.82	651.57
11/9/2001	4.01	645.43	10.81	653.60	5.26	649.94	6.71	651.46
12/11/2001	4.18	645.60	10.93	653.72	4.97	649.65	6.85	651.60
1/11/2002	3.54	644.96	9.59	652.38	4.92	649.60	6.47	651.22
2/8/2002	2.06	643.48	9.20	651.99	4.72	649.40	5.27	650.02
3/12/2002	2.06	643.48	9.20	651.99	4.72	649.40	5.27	650.02
4/16/2002	5.36	646.78	10.25	653.04	5.92	650.60	7.17	651.92
5/10/2002	5.45	646.87	10.51	653.30	6.10	650.78	7.41	652.16
6/20/2002	6.22	647.64	11.03	653.82	6.60	651.28	11.23	655.98
7/24/2002	5.46	646.88	10.45	653.24	6.22	650.90	10.47	655.22
8/8/2002	5.06	646.48	11.29	654.08	5.88	650.56	10.11	654.86
9/12/2002	5.63	647.05	11.80	654.59	6.62	651.30	10.72	655.47
10/14/2002	5.14	646.56	11.37	654.16	5.92	650.60	10.15	654.90
11/22/2002	4.90	646.32	10.53	653.32	5.47	650.15	8.49	653.24
12/17/2002	4.66	646.08	9.69	652.48	5.02	649.70	6.87	651.62
1/8/2003	4.61	646.03	9.67	652.46	4.94	649.62	6.73	651.48
2/21/2003	2.70	644.12	8.35	651.14	4.10	648.78	5.81	650.56
3/21/2003	2.66	644.08	8.26	651.05	4.17	648.85	5.78	650.53
4/14/2003	2.54	643.96	8.18	650.97	4.22	648.90	7.57	652.32
5/29/2003	5.16	646.58	9.63	652.42	5.42	650.10	7.87	652.62
6/27/2003	4.36	645.78	8.83	651.62	4.26	648.94	7.53	652.28
7/22/2003	5.26	646.68	10.43	653.22	6.22	650.90	7.61	652.36
8/28/2003	5.14	646.56	10.81	653.60	5.42	650.10	7.43	652.18
9/4/2003	6.32	647.74	11.86	654.65	12.59	657.27	8.98	653.73
10/7/2003	5.66	647.08	10.91	653.70	5.87	650.55	7.73	652.48
11/26/2003	6.02	647.22	10.43	652.84	5.63	650.10	7.48	652.26
12/1/2003	6.00	647.20	10.41	652.82	5.63	650.10	7.48	652.26
1/19/2004	6.39	647.59	10.76	653.17	5.86	650.33	8.50	653.28
2/18/2004	6.78	647.98	11.05	653.46	6.21	650.68	9.74	654.52
3/26/2004	3.41	644.61	10.86	653.27	6.39	650.86	8.24	653.02
4/23/2004	7.23	648.43	11.13	653.54	6.63	651.10	10.04	654.82
5/28/2004	7.20	648.40	11.31	653.72	6.67	651.14	10.02	654.80
6/3/2004	7.09	648.29	11.51	653.92	6.73	651.20	9.94	654.72
7/19/2004	6.88	648.08	11.23	653.64	6.41	650.88	9.53	654.31
8/12/2004	6.56	647.76	11.13	653.54	6.17	650.64	9.38	654.16
9/17/2004	6.67	647.87	11.43	653.84	6.35	650.82	7.86	652.64
10/20/2004	6.33	647.53	11.11	653.52	5.93	650.40	7.44	652.22
11/12/2004	6.68	647.88	11.46	653.87	6.27	650.74	7.69	652.47
12/15/2004	6.73	647.93	11.51	653.92	6.35	650.82	7.75	652.53
1/25/2005	7.88	649.08	11.19	653.60	6.85	651.32	11.77	656.55
2/23/2005	7.66	648.86	11.31	653.72	6.77	651.24	11.24	656.02
3/4/2005	7.56	648.76	11.21	653.62	6.82	651.29	11.44	656.22
4/26/2005	8.08	649.28	11.83	654.24	7.21	651.68	11.49	656.27
5/25/2005	8.58	649.78	12.41	654.82	7.63	652.10	11.54	656.32
6/2/2005	6.88	648.08	12.04	654.45	7.23	651.70	10.44	655.22
7/7/2005	6.50	647.70	11.66	654.07	6.63	651.10	9.92	654.70
8/12/2005	5.38	646.58	11.29	653.70	6.01	650.48	7.40	652.18
9/7/2005	4.82	646.02	10.59	653.00	5.33	649.80	6.88	651.66
10/4/2005	4.38	645.58	10.13	652.54	5.13	649.60	6.64	651.42

Historical Leachate Level Measurements
Climax Molybdenum Company Industrial Landfill

Well #	LPZ-1		LPZ-2		LPZ-3		LPZ-4	
Drilled Well Depth (ft)[3]	15.35		17.85		15.35		17.80	
Bottom of Well (ft ASL)[3]	641.42		642.79		644.68		644.75	
	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]
11/23/2005	4.08	645.50	9.93	652.72	5.02	649.70	6.75	651.50
12/1/2005	4.16	645.58	9.71	652.50	4.89	649.57	6.63	651.38
1/27/2006	2.91	644.33	7.93	650.72	4.82	649.50	6.97	651.72
2/14/2006	5.20	646.62	8.89	651.68	5.40	650.08	7.41	652.16
3/1/2006	5.18	646.60	8.71	651.50	5.24	649.92	7.17	651.92
4/25/2006	7.86	649.28	9.93	652.72	5.98	650.66	7.61	652.36
5/18/2006	6.47	647.89	10.15	652.94	5.97	650.65	7.61	652.36
6/2/2006	5.26	646.68	9.89	652.68	5.44	650.12	7.09	651.84
7/3/2006	4.66	646.08	9.81	652.60	5.05	649.73	6.56	651.31
8/4/2006	4.21	645.63	9.53	652.32	4.46	649.14	6.18	650.93
9/1/2006	3.80	645.22	9.06	651.85	4.05	648.73	5.75	650.50
10/9/2006	3.16	644.58	8.30	651.09	3.45	648.13	5.11	649.86
11/30/2006	2.51	643.93	7.23	650.02	3.09	647.77	4.33	649.08
12/14/2006	2.46	643.88	7.20	649.99	2.98	647.66	1.13	645.88
1/4/2007	2.39	643.81	7.07	649.86	2.97	647.65	4.10	648.85
2/28/2007	2.34	643.76	6.43	649.22	2.68	647.36	6.09	650.84
3/8/2007	2.33	643.75	6.17	648.96	2.54	647.22	3.97	648.72
4/18/2007	5.41	646.83	7.49	650.28	3.94	648.62	5.67	650.42
5/21/2007	5.66	647.08	8.53	651.32	6.72	651.40	5.99	650.74
6/7/2007	5.17	646.59	9.18	651.97	4.88	649.56	6.09	650.84
7/6/2007	4.42	645.84	8.93	651.72	4.24	648.92	5.50	650.25
8/2/2007	5.76	647.18	9.18	651.97	4.12	648.80	5.21	649.96
9/10/2007	5.29	646.71	9.81	652.60	NM	NM	NM	NM
10/8/2007	4.54	645.96	9.51	652.30	4.97	649.65	0.00	643.80
11/6/2007	1.17	642.59	4.93	647.72	1.80	646.48	2.65	647.40
12/3/2007	0.00	641.42	4.45	647.24	1.64	646.32	2.48	647.23
1/8/2008	1.25	642.67	4.44	647.23	2.01	646.69	3.01	647.76
2/14/2008	1.40	642.82	4.37	647.16	1.69	646.37	2.93	647.68
3/13/2008	1.23	642.65	4.18	646.97	1.42	646.10	2.75	647.50
4/21/2008	3.39	644.81	4.76	647.55	1.85	646.53	3.06	647.81
5/21/2008	4.72	646.14	5.62	648.41	2.64	647.32	3.37	648.12
6/2/2008	4.44	645.86	5.66	648.45	2.56	647.24	3.20	647.95
7/1/2008	6.67	648.09	6.27	649.06	2.97	647.65	3.51	648.26
8/1/2008	5.55	646.97	6.62	649.41	1.89	646.57	3.67	648.42
9/2/2008	4.07	645.49	6.82	649.61	2.99	647.67	3.53	648.28
10/13/2008	5.07	646.49	6.92	649.71	6.41	651.09	3.93	648.68
11/19/2008	5.57	646.99	7.02	649.81	3.79	648.47	6.78	651.53
12/29/2008	5.53	646.95	7.58	650.37	3.49	648.17	6.80	651.55
1/22/2009	4.67	646.09	7.32	650.11	2.99	647.67	6.61	651.36
2/6/2009	4.37	645.79	6.47	649.26	2.49	647.17	6.31	651.06
3/19/2009	5.07	646.49	6.62	649.41	2.17	646.85	6.27	651.02
4/23/2009	6.77	648.19	8.07	650.86	3.09	647.77	6.61	651.36
5/20/2009	7.17	648.59	8.02	650.81	3.31	647.99	6.59	651.34
6/9/2009	6.77	648.19	8.18	650.97	3.60	648.28	6.83	651.58
7/2/2009	6.85	648.27	9.49	652.28	3.75	648.43	7.03	651.78
8/6/2009	4.47	645.89	8.82	651.61	3.79	648.47	7.06	651.81
9/1/2009	5.56	646.98	9.60	652.39	4.16	648.84	7.16	651.91
10/19/2009	6.52	647.94	9.12	651.91	4.37	649.05	7.28	652.03
11/5/2009	7.07	648.49	9.02	651.81	4.54	649.22	6.41	651.16
12/1/2009	7.35	648.77	9.34	652.13	4.61	649.29	7.56	652.31
1/13/2010	7.24	648.66	8.47	651.26	4.89	649.57	7.38	652.13
2/4/2010	7.27	648.69	8.40	651.19	4.76	649.44	7.46	652.21
3/3/2010	6.67	648.09	7.82	650.61	4.74	649.42	7.51	652.26
4/13/2010	6.77	648.19	8.62	651.41	5.84	650.52	7.67	652.42
5/6/2010	7.15	648.57	8.94	651.73	4.73	649.41	7.97	652.72
6/25/2010	8.21	649.63	10.20	652.99	5.06	649.74	9.51	654.26
7/22/2010	7.87	649.29	10.44	653.23	5.29	649.97	9.76	654.51
8/12/2010	7.50	648.92	10.53	653.32	4.55	649.23	9.86	654.61
9/21/2010	7.65	649.07	10.32	653.11	5.89	650.57	9.79	654.54
10/6/2010	7.47	648.89	9.92	652.71	6.12	650.80	9.56	654.31

Historical Leachate Level Measurements
Climax Molybdenum Company Industrial Landfill

Well #	LPZ-1		LPZ-2		LPZ-3		LPZ-4	
Drilled Well Depth (ft)[3]	15.35		17.85		15.35		17.80	
Bottom of Well (ft ASL)[3]	641.42		642.79		644.68		644.75	
	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]
11/2/2010	8.66	650.08	10.30	653.09	8.77	653.45	5.45	650.20
12/8/2010	8.70	650.12	9.33	652.12	6.87	651.55	5.04	649.79
1/27/2011	9.54	650.96	8.78	651.57	7.70	652.38	4.67	649.42
2/15/2011	9.79	651.21	8.71	651.50	7.45	652.13	4.18	648.93
3/17/2011	11.16	652.58	9.63	652.42	7.97	652.65	4.45	649.20
4/12/2011	10.92	652.34	9.90	652.69	8.20	652.88	4.62	649.37
5/24/2011	10.11	651.53	10.22	653.01	8.22	652.90	5.27	650.02
6/8/2011	10.90	652.32	11.00	653.79	8.51	653.19	5.60	650.35
7/5/2011	10.43	651.85	11.20	653.99	8.71	653.39	6.12	650.87
8/11/2011	7.78	649.20	10.87	653.66	8.26	652.94	6.13	650.88
9/6/2011	7.10	648.52	10.13	652.92	7.33	652.01	5.77	650.52
10/5/2011	6.66	648.08	9.30	652.09	6.72	651.40	5.35	650.10
11/2/2011	6.19	647.61	8.55	651.34	6.38	651.06	4.85	649.60
12/1/2011	6.64	648.06	9.83	652.62	6.75	651.43	9.91	654.66
1/6/2012	8.16	649.58	11.03	653.82	7.34	652.02	9.27	654.02
2/1/2012	7.76	649.18	10.48	653.27	7.01	651.69	9.00	653.75
3/19/2012	8.76	650.18	12.43	655.22	7.85	652.53	9.21	653.96
4/11/2012	7.58	649.00	11.13	653.92	7.32	652.00	9.01	653.76
5/18/2012	8.46	649.88	12.08	654.87	7.57	652.25	9.90	654.65
6/8/2012	7.12	648.54	11.73	654.52	6.82	651.50	10.01	654.76
7/13/2012	6.16	647.58	11.18	653.97	6.51	651.19	10.05	654.80
8/21/2012	6.02	647.44	10.43	653.22	5.84	650.52	8.86	653.61
9/7/2012	5.72	647.14	10.23	653.02	5.82	650.50	8.25	653.00
10/9/2012	4.91	646.33	9.27	652.06	5.21	649.89	7.56	652.31
11/2/2012	4.35	645.77	8.49	651.28	5.03	649.71	7.33	652.08
12/5/2012	3.69	645.11	7.58	650.37	4.52	649.20	6.99	651.74
1/8/2013	3.36	644.78	7.04	649.83	4.43	649.11	6.76	651.51
2/13/2013	3.36	644.78	7.04	649.83	4.43	649.11	6.76	651.51
3/26/2013	5.75	647.17	8.64	651.43	5.20	649.88	7.21	651.96
4/24/2013	8.05	649.47	11.23	654.02	5.67	650.35	7.45	652.20
5/29/2013	11.61	653.03	12.38	655.17	6.02	650.70	7.91	652.66
6/19/2013	10.24	651.66	12.47	655.26	6.29	650.97	8.06	652.81
7/25/2013	10.14	651.56	11.59	654.38	5.92	650.60	8.11	652.86
8/15/2013	9.72	651.14	10.97	653.76	5.65	650.33	8.01	652.76
9/19/2013	12.74	654.16	10.36	653.15	5.09	649.77	7.94	652.69
10/8/2013	9.22	650.64	9.87	652.66	5.15	649.83	7.99	652.74
11/26/2013	8.86	650.28	10.83	653.62	1.66	646.34	7.77	652.52
12/4/2013	8.94	650.36	10.88	653.67	4.55	649.23	8.05	652.80
1/15/2014	6.89	648.31	10.23	653.02	4.52	649.20	7.81	652.56
2/25/2014	5.55	646.97	8.75	651.54	4.14	648.82	7.11	651.86
3/10/2014	5.67	647.09	9.07	651.86	3.72	648.40	7.03	651.78
4/9/2014	6.06	647.48	10.25	653.04	4.37	649.05	7.43	652.18
5/15/2014	7.36	648.78	11.31	654.10	5.12	649.80	6.91	651.66
6/25/2014	8.20	649.62	12.43	655.22	5.59	650.27	7.85	652.60
7/9/2014	8.01	649.43	12.40	655.19	5.94	650.62	8.01	652.76
8/13/2014	8.05	649.47	12.50	655.29	6.00	650.68	7.13	651.88
9/17/2014	6.79	648.21	12.69	655.48	6.58	651.26	8.51	653.26
10/6/2014	6.81	648.23	12.73	655.52	6.84	651.52	8.83	653.58
11/21/2014	6.26	647.68	11.14	653.93	6.51	651.19	8.65	653.40
12/12/2014	5.93	647.35	10.68	653.47	6.47	651.15	8.66	653.41
1/21/2015	5.96	647.38	10.68	653.47	6.66	651.34	8.71	653.46
2/20/2015	7.29	648.71	11.37	654.16	7.17	651.85	8.72	653.47
3/12/2015	6.51	647.93	10.38	653.17	7.25	651.93	8.47	653.22
4/15/2015	6.44	647.86	10.39	653.18	6.67	651.35	8.42	653.17
5/22/2015	7.55	648.97	11.43	654.22	7.39	652.07	8.65	653.40
6/3/2015	8.45	649.87	12.10	654.89	8.25	652.93	8.84	653.59
7/10/2015	8.91	650.33	13.28	656.07	8.51	653.19	9.20	653.95
8/7/2015	8.41	649.83	13.09	655.88	8.76	653.44	9.22	653.97
9/10/2015	7.35	648.77	12.60	655.39	8.20	652.88	9.51	654.26
10/12/2015	6.68	648.10	12.05	654.84	7.70	652.38	9.78	654.53

Historical Leachate Level Measurements
Climax Molybdenum Company Industrial Landfill

Well #	LPZ-1		LPZ-2		LPZ-3		LPZ-4	
Drilled Well Depth (ft)[3]	15.35		17.85		15.35		17.80	
Bottom of Well (ft ASL)[3]	641.42		642.79		644.68		644.75	
	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]	Thickness (ft)[1]	Elevation (ft)[2]
11/24/2015	5.97	647.39	10.53	653.32	7.24	651.92	9.99	654.74
12/4/2015	6.22	647.64	10.92	653.71	7.54	652.22	9.96	654.71
1/19/2016	7.61	649.03	11.13	653.92	8.32	653.00	10.16	654.91
2/9/2016	5.46	646.88	11.43	654.22	8.32	653.00	8.16	652.91
3/17/2016	5.76	647.18	11.33	654.12	8.77	653.45	8.31	653.06
4/28/2016	6.56	647.98	11.93	654.72	9.17	653.85	8.57	653.32
5/25/2016	5.46	646.88	11.73	654.52	9.22	653.90	8.71	653.46
6/15/2016	9.06	650.48	11.93	654.72	8.32	653.00	8.81	653.56
7/21/2016	2.96	644.38	11.03	653.82	6.92	651.60	8.91	653.66
8/22/2016	3.72	645.14	10.86	653.65	7.54	652.22	8.78	653.53
9/13/2016	3.46	644.88	10.53	653.32	7.32	652.00	8.41	653.16
10/27/2016	2.56	643.98	9.93	652.72	6.57	651.25	5.76	650.51
11/10/2016	2.62	644.04	9.49	652.28	6.42	651.10	5.51	650.26
12/8/2016	2.33	643.75	9.06	651.85	6.28	650.96	6.51	651.26
1/24/2017	2.12	643.54	7.50	650.29	6.08	650.76	6.53	651.28
2/6/2017	1.98	643.40	8.81	651.60	6.06	650.74	6.51	651.26
3/8/2017	2.02	643.44	8.54	651.33	5.92	650.60	5.17	649.92
4/11/2017	4.66	646.08	11.23	654.02	7.06	651.74	6.36	651.11
5/2/2017	4.05	645.47	12.10	654.89	6.77	651.45	6.41	651.16
6/8/2017	4.04	645.46	12.19	654.98	7.11	651.79	6.00	650.75
7/12/2017	3.36	644.78	10.93	653.72	6.47	651.15	6.05	650.80
8/18/2017	2.75	644.17	10.23	653.02	6.78	651.46	4.77	649.52
9/13/2017	2.26	643.68	9.96	652.75	5.55	650.23	5.39	650.14
10/18/2017	2.48	643.90	9.94	652.73	6.53	651.21	4.51	649.26
11/27/2017	2.14	643.56	9.46	652.25	6.15	650.83	4.08	648.83
12/19/2017	0.80	642.22	7.29	650.08	4.11	648.79	4.37	649.12
1/19/2018	0.59	642.01	6.71	649.50	3.35	648.03	3.85	648.60
2/26/2018	0.39	641.81	6.63	649.42	3.23	647.91	3.77	648.52
3/9/2018	0.35	641.77	8.39	651.18	3.53	648.21	4.23	648.98
4/12/2018	0.24	641.66	8.06	650.85	3.35	648.03	4.39	649.14
5/23/2018	4.86	646.28	9.14	651.93	5.92	650.60	4.60	649.35
6/18/2018	2.07	643.49	9.13	651.92	4.71	649.39	4.55	649.30
7/9/2018	1.39	642.81	8.74	651.53	4.01	648.69	4.00	648.75
8/2/2018	2.02	643.44	9.56	652.35	4.55	649.23	4.85	649.60
9/5/2018	2.34	643.76	9.93	652.72	4.79	649.47	5.27	650.02
10/23/2018	4.46	645.88	10.91	653.70	4.92	649.60	7.00	651.75
4/9/2019	6.86	648.28	11.53	654.32	7.92	652.60	6.11	650.86
8/28/2019	4.26	645.68	11.93	654.72	7.87	652.55	10.06	654.81
3/17/2020	8.42	649.84	12.60	655.39	9.95	654.63	11.21	655.96
7/28/2020	7.86	649.28	12.37	655.16	9.60	654.28	11.54	656.29
3/18/2021	7.61	649.03	12.41	655.20	9.59	654.27	10.36	655.11
9/1/2021	7.60	649.02	12.84	655.63	10.24	654.92	12.66	657.41
6/29/2022	7.70	649.12	12.76	655.55	10.14	654.82	13.50	658.25
8/16/2022	4.84	646.26	11.90	654.69	9.04	653.72	12.28	657.03
4/6/2023	6.91	648.33	14.14	656.93	10.31	654.99	14.40	659.15
7/27/2023	4.62	646.04	11.43	654.22	8.68	653.36	12.04	656.79
5/23/2024	4.26	645.68	12.24	655.03	9.99	654.67	17.79	662.54
7/30/2024	5.04	646.46	11.41	654.20	9.57	654.25	12.04	656.79

Notes:

1) Column A represents leachate column thickness.

2) Column B represents measured leachate elevation.

3) Drilled well depth and bottom of well elevation based on Green Environmental Services August 1991 Conceptual Leachate Control Plan Report.

4) NA denotes Not Available.

5) NM denotes Not Measured.

Historical Leachate Level Measurements
Climax Molybdenum Company Industrial Landfill

Well #	LPZ-5	
Drilled Well Depth (ft)[3]	20.13	
Bottom of Well (ft ASL)[3]	661.85	
	Thickness (ft)[1]	Elevation (ft)[2]
4/25/2006	NA	DRY
5/18/2006	NA	DRY
6/2/2006	NA	DRY
7/3/2006	NA	DRY
8/4/2006	NA	DRY
9/1/2006	NA	DRY
10/9/2006	NA	DRY
11/30/2006	NA	DRY
12/14/2006	NA	DRY
1/4/2007	NA	DRY
2/28/2007	NA	DRY
3/8/2007	NA	DRY
4/18/2007	0.54	662.39
5/21/2007	0.86	662.71
6/7/2007	0.86	662.71
7/6/2007	0.85	662.70
8/2/2007	0.86	662.71
9/10/2007	0.85	662.70
10/8/2007	0.86	662.71
11/6/2007	0.86	662.71
12/3/2007	3.85	665.70
1/8/2008	0.88	662.73
2/14/2008	5.88	667.73
3/13/2008	0.88	662.73
4/21/2008	0.88	662.73
5/21/2008	0.89	662.74
6/2/2008	3.88	665.73
7/1/2008	0.93	662.78
8/1/2008	1.73	663.58
9/2/2008	0.48	662.33
10/13/2008	0.58	662.43
11/19/2008	0.55	662.40
12/29/2008	1.13	662.98
1/22/2009	0.55	662.40
2/6/2009	0.53	662.38
3/19/2009	0.81	662.66
4/23/2009	1.05	662.90
5/20/2009	1.28	663.13
6/9/2009	0.66	662.51
7/2/2009	0.87	662.72
8/6/2009	0.55	662.40
9/1/2009	1.27	663.12
10/19/2009	0.77	662.62

Historical Leachate Level Measurements
Climax Molybdenum Company Industrial Landfill

Well #	LPZ-5	
Drilled Well Depth (ft)[3]	20.13	
Bottom of Well (ft ASL)[3]	661.85	
	Thickness (ft)[1]	Elevation (ft)[2]
11/5/2009	1.28	663.13
12/1/2009	1.03	662.88
1/13/2010	0.73	662.58
2/4/2010	1.08	662.93
3/3/2010	0.58	662.43
4/13/2010	0.83	662.68
5/6/2010	1.73	663.58
6/25/2010	1.83	663.68
7/22/2010	1.37	663.22
8/12/2010	0.85	662.70
9/21/2010	0.66	662.51
10/6/2010	0.88	662.73
11/2/2010	0.53	662.38
12/8/2010	0.48	662.33
1/27/2011	0.47	662.32
2/15/2011	0.43	662.28
3/17/2011	1.01	662.86
4/12/2011	0.91	662.76
5/24/2011	0.57	662.42
6/8/2011	1.45	663.30
7/5/2011	1.52	663.37
8/11/2011	0.52	662.37
9/6/2011	0.48	662.33
10/5/2011	0.50	662.35
11/2/2011	0.44	662.29
12/1/2011	0.46	662.31
1/6/2012	0.53	662.38
2/1/2012	0.45	662.30
3/19/2012	1.13	662.98
4/11/2012	0.53	662.38
5/18/2012	1.15	663.00
6/8/2012	0.53	662.38
7/13/2012	0.43	662.28
8/21/2012	0.41	662.26
9/7/2012	0.38	662.23
10/9/2012	0.38	662.23

Historical Leachate Level Measurements
Climax Molybdenum Company Industrial Landfill

Well #	LPZ-5	
Drilled Well Depth (ft)[3]	20.13	
Bottom of Well (ft ASL)[3]	661.85	
	Thickness (ft)[1]	Elevation (ft)[2]
11/2/2012	0.37	662.22
12/5/2012	0.35	662.20
1/8/2013	0.35	662.20
2/13/2013	0.35	662.20
3/26/2013	0.51	662.36
4/24/2013	1.08	662.93
5/29/2013	0.93	662.78
6/19/2013	1.01	662.86
7/25/2013	0.48	662.33
8/15/2013	0.49	662.34
9/19/2013	0.49	662.34
10/8/2013	0.47	662.32
11/26/2013	0.46	662.31
12/4/2013	0.48	662.33
1/15/2014	0.48	662.33
2/25/2014	0.44	662.29
3/10/2014	0.43	662.28
4/9/2014	0.41	662.26
5/15/2014	0.45	662.30
6/25/2014	0.40	662.25
7/9/2014	0.43	662.28
8/13/2014	0.38	662.23
9/17/2014	0.70	662.55
10/6/2014	0.47	662.32
11/21/2014	0.49	662.34
12/12/2014	0.48	662.33
1/21/2015	0.50	662.35
2/20/2015	0.63	662.48
3/12/2015	0.48	662.33
4/15/2015	0.50	662.35
5/22/2015	0.80	662.65
6/3/2015	0.87	662.72
7/10/2015	1.63	663.48
8/7/2015	1.13	662.98
9/10/2015	0.53	662.38
10/12/2015	0.51	662.36

Historical Leachate Level Measurements
Climax Molybdenum Company Industrial Landfill

Well #	LPZ-5	
Drilled Well Depth (ft)[3]	20.13	
Bottom of Well (ft ASL)[3]	661.85	
	Thickness (ft)[1]	Elevation (ft)[2]
11/24/2015	0.20	662.05
12/4/2015	1.02	662.87
1/19/2016	1.38	663.23
2/9/2016	1.28	663.13
3/17/2016	0.88	662.73
4/28/2016	0.93	662.78
5/25/2016	0.93	662.78
6/15/2016	0.53	662.38
7/21/2016	0.23	662.08
8/22/2016	1.47	663.32
9/13/2016	0.93	662.78
10/27/2016	0.38	662.23
11/10/2016	0.37	662.22
12/8/2016	0.45	662.30
1/24/2017	0.41	662.26
2/6/2017	0.43	662.28
3/8/2017	0.46	662.31
4/11/2017	0.41	662.26
5/2/2017		NM
6/8/2017	0.91	662.76
7/12/2017	0.44	662.29
8/18/2017	0.48	662.33
9/13/2017	0.59	662.44
10/18/2017	0.24	662.09
11/27/2017	0.06	661.91
12/19/2017	0.47	662.32
1/19/2018	0.52	662.37
2/26/2018	0.59	662.44
3/9/2018	0.85	662.70
4/12/2018	0.52	662.37
5/23/2018	5.74	667.59
6/18/2018	0.53	662.38
7/9/2018	0.65	662.50
8/2/2018	1.69	663.54
9/5/2018	2.03	663.88
10/23/2018	1.54	663.39

Historical Leachate Level Measurements
Climax Molybdenum Company Industrial Landfill

Well #	LPZ-5	
Drilled Well Depth (ft)[3]	20.13	
Bottom of Well (ft ASL)[3]	661.85	
	Thickness (ft)[1]	Elevation (ft)[2]
11/12/2018	0.90	662.75
December 2018 [4]	0.83	662.68
January 2019	1.24	663.09
February 2019	1.01	662.86
March 2019	0.61	662.46
April 2019	1.15	663.00
May 2019	2.11	663.96
June 2019	2.27	664.12
July 2019	1.71	663.56
August 2019	0.99	662.84
September 2019	0.83	662.68
October 2019	1.86	663.71
November 2019	0.91	662.76
December 2019	0.99	662.84
January 2020	1.31	663.16
February 2020	0.97	662.82
March 2020	1.26	663.11
April 2020	1.23	663.08
May 2020	1.15	663.00
June 2020		NM
July 2020	0.63	662.48
August 2020	0.56	662.41
September 2020	0.49	662.34
October 2020	0.30	662.15
November 2020	0.27	662.12
December 2020		NM
January 2021	0.28	662.13
February 2021	0.47	662.32
March 2021	0.79	662.64
April 2021	1.54	663.39
May 2021		NM
June 2021	1.26	663.11
July 2021	1.22	663.07
August 2021	1.65	663.50
September 2021	0.73	662.58

Historical Leachate Level Measurements
Climax Molybdenum Company Industrial Landfill

Well #	LPZ-5	
Drilled Well Depth (ft)[3]	20.13	
Bottom of Well (ft ASL)[3]	661.85	
	Thickness (ft)[1]	Elevation (ft)[2]
October 2021	0.35	662.20
November 2021	0.67	662.52
December 2021	0.48	662.33
January 2022	0.30	662.15
February 2022	0.47	662.32
March 2022	1.31	663.16
April 2022	1.96	663.81
May 2022	2.38	664.23
June 2022	1.52	663.37
July 2022	1.06	662.91
August 2022	0.78	662.63
September 2022	0.67	662.52
October 2022		NM
November 2022	0.60	662.45
December 2022	0.55	662.40
January 2023	0.51	662.36
February 2023	0.77	662.62
March 2023	1.62	663.47
April 2023	1.98	663.83
May 2023	1.63	663.48
June 2023	0.96	662.81
July 2023	0.78	662.63
August 2023	0.19	662.04
September 2023	0.61	662.46
October 2023	0.79	662.64
November 2023	0.85	662.70
December 2023	0.77	662.62
January 2024	1.32	663.17
February 2024	1.58	663.43
March 2024	1.23	663.08
April 2024	3.34	665.19
May 2024	2.10	663.95
June 2024	1.20	663.05
July 2024	0.33	662.18
August 2024	0.43	662.28
September 2024	0.19	662.04

Notes:

1) Column A represents leachate column thickness.

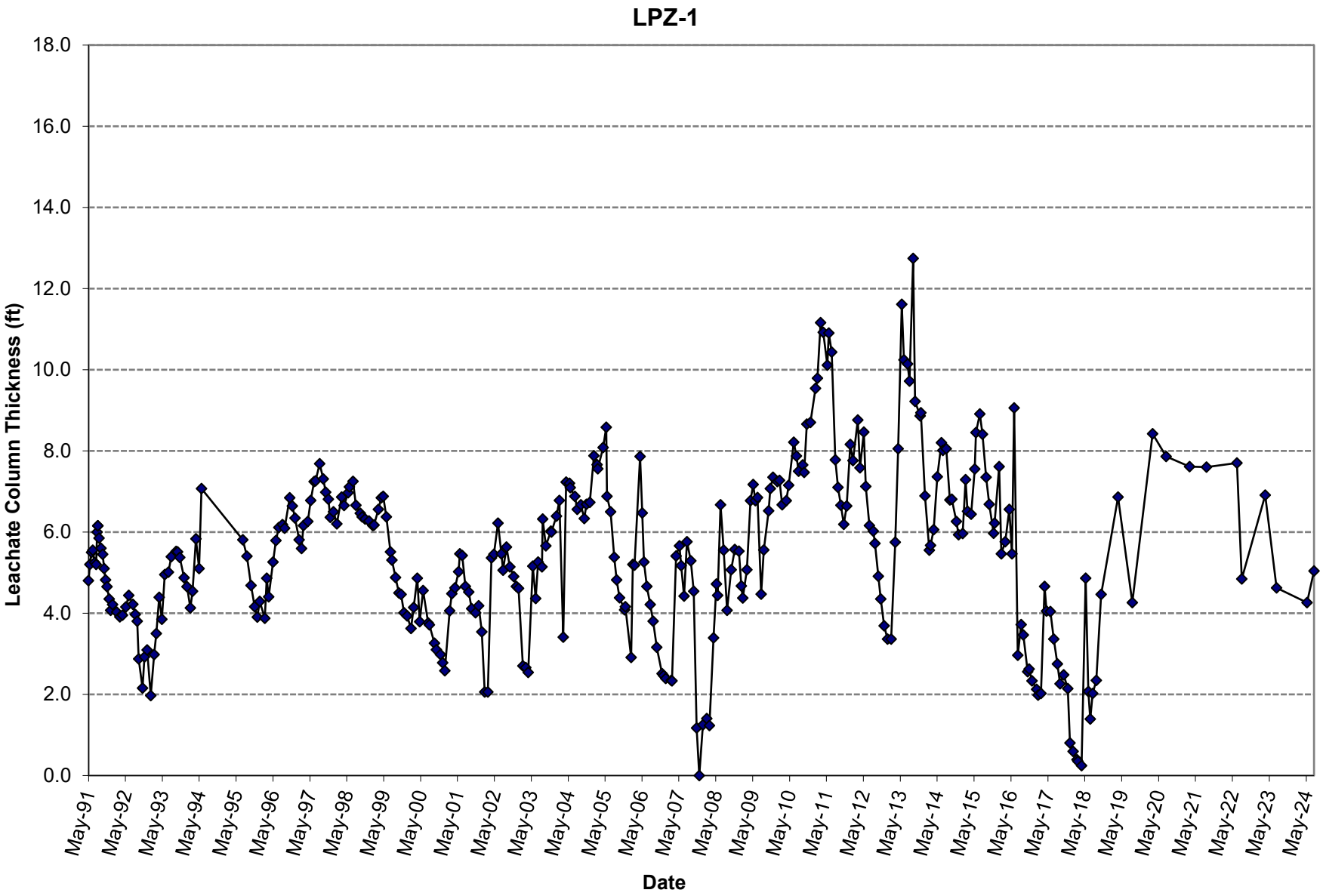
2) Column B represents measured leachate elevation.

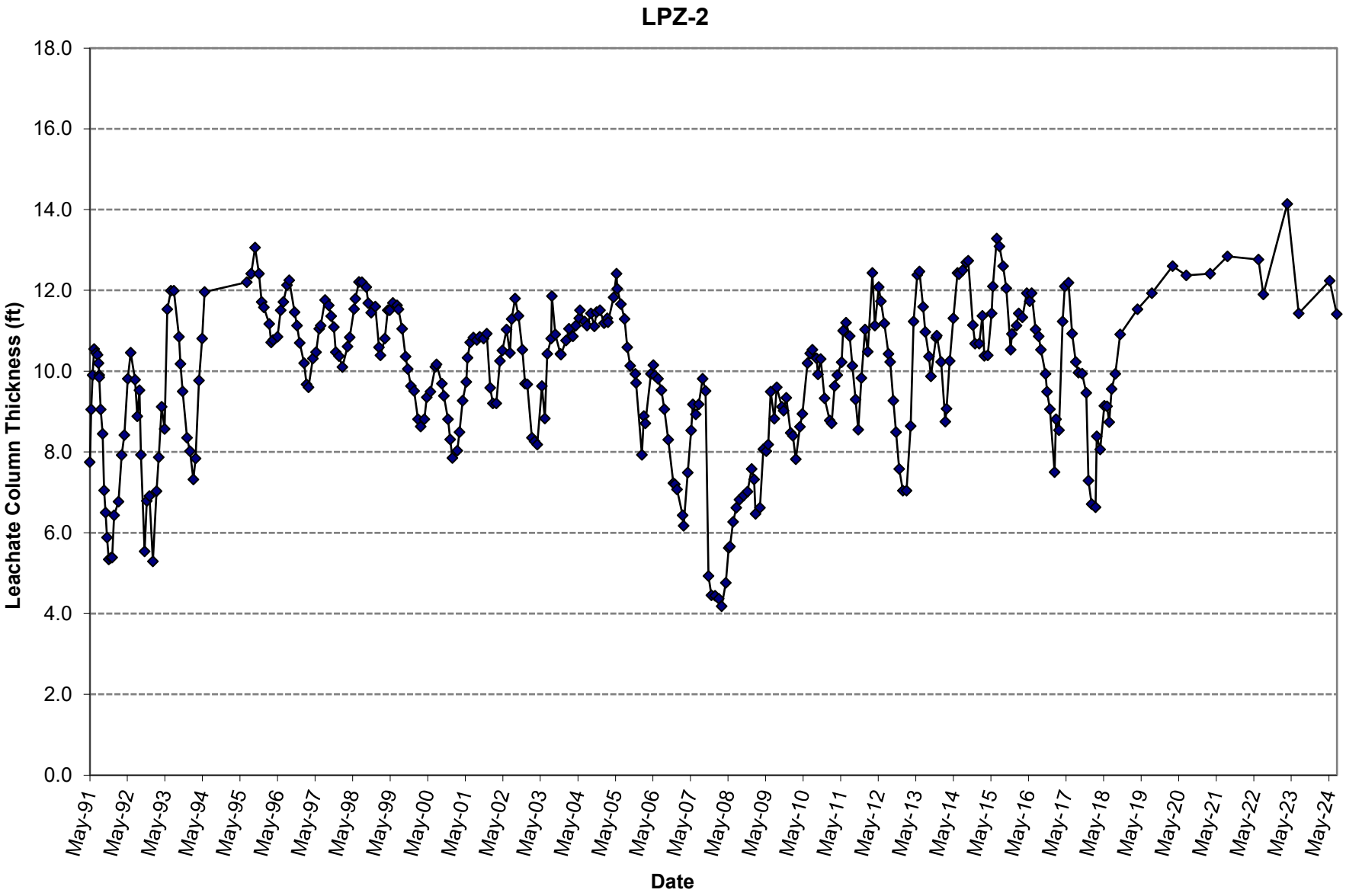
3) Drilled well depth and bottom of well elevation based on John C. Halepaska and Associates, Inc. May 17, 2006 Transmittal of Two Completed #542-1277 Forms.

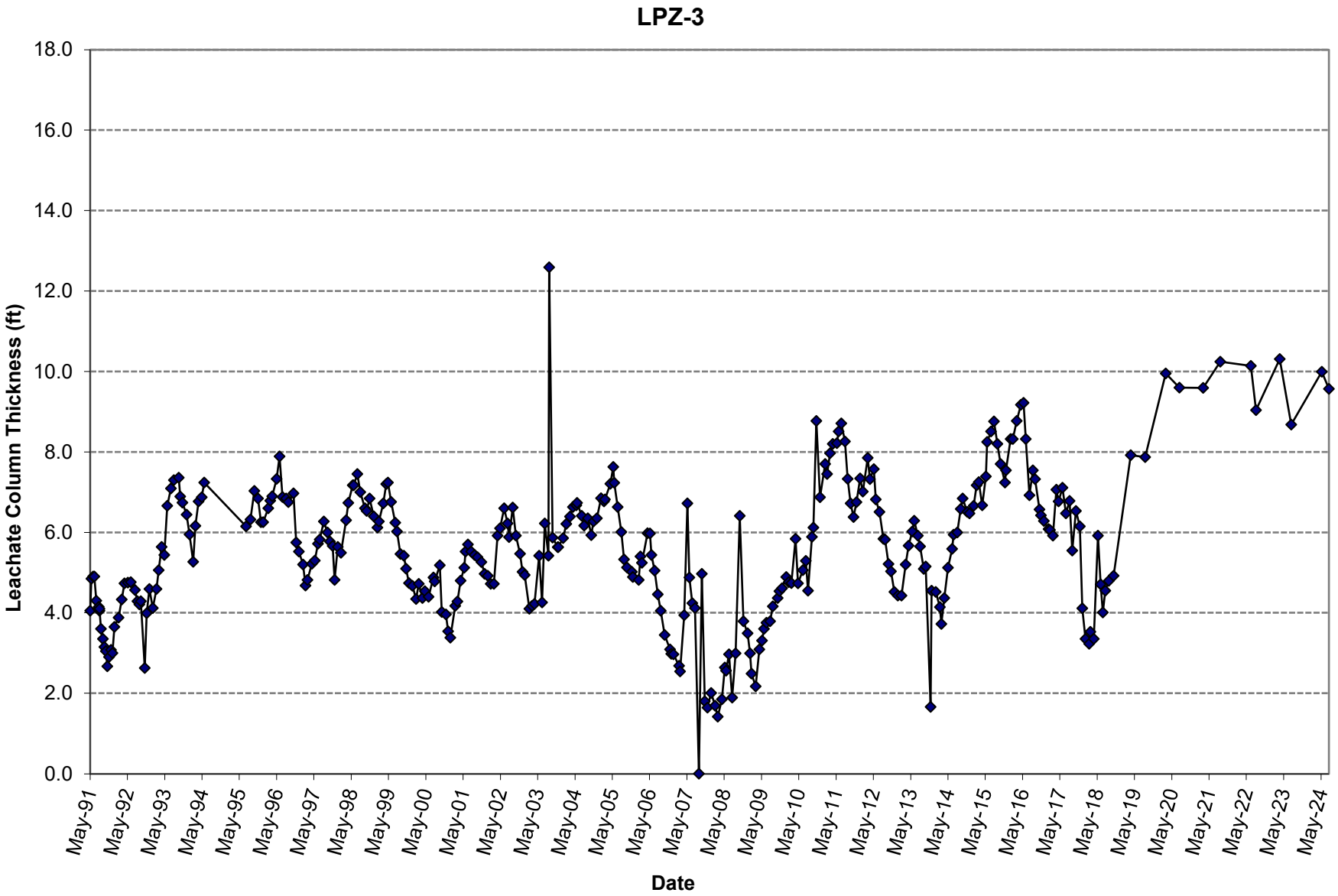
4) Thickness measurements at LPZ-5 starting in December 2018 represent monthly average leachate thicknesses communicated by the SCADA system.

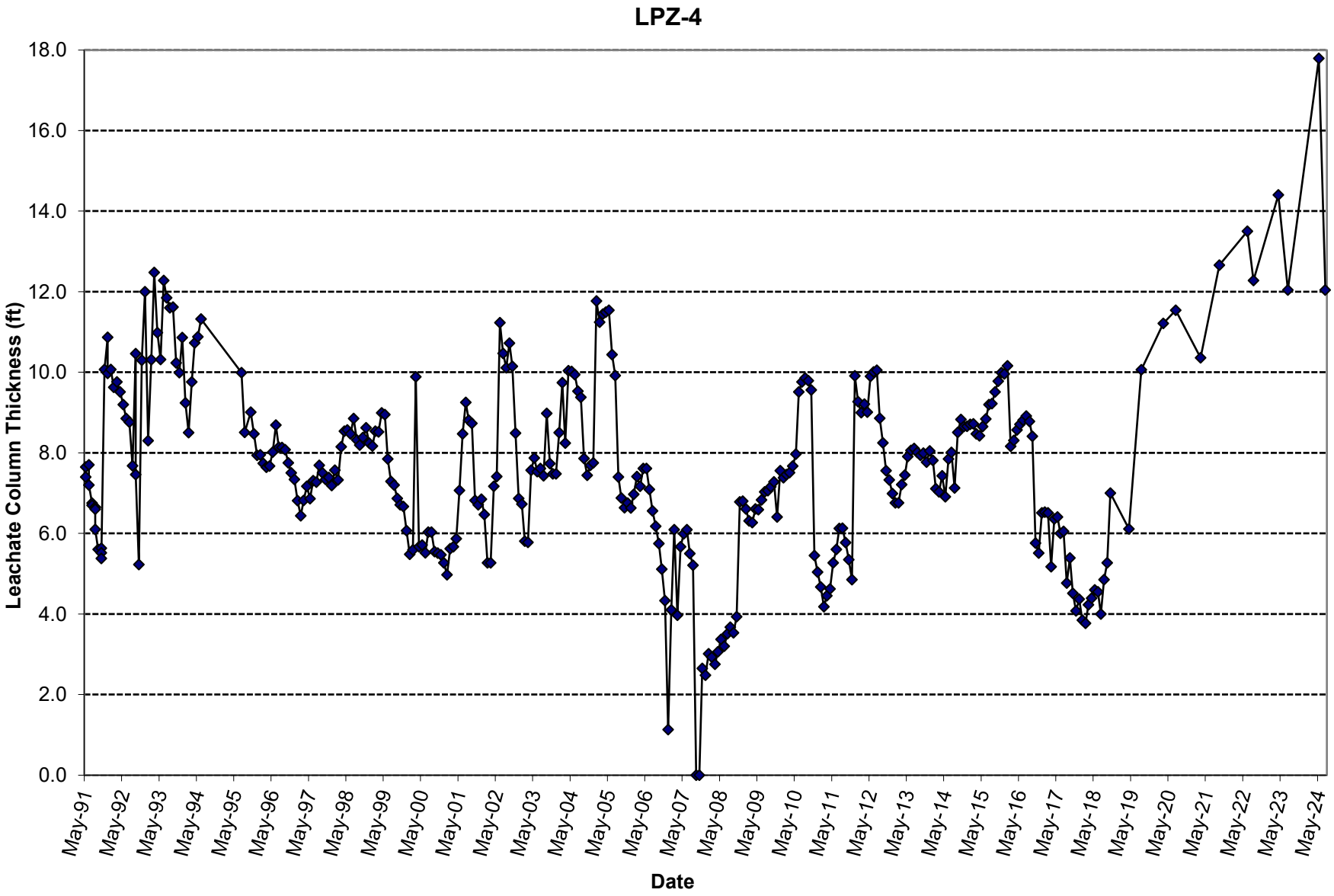
5) NA denotes Not Available.

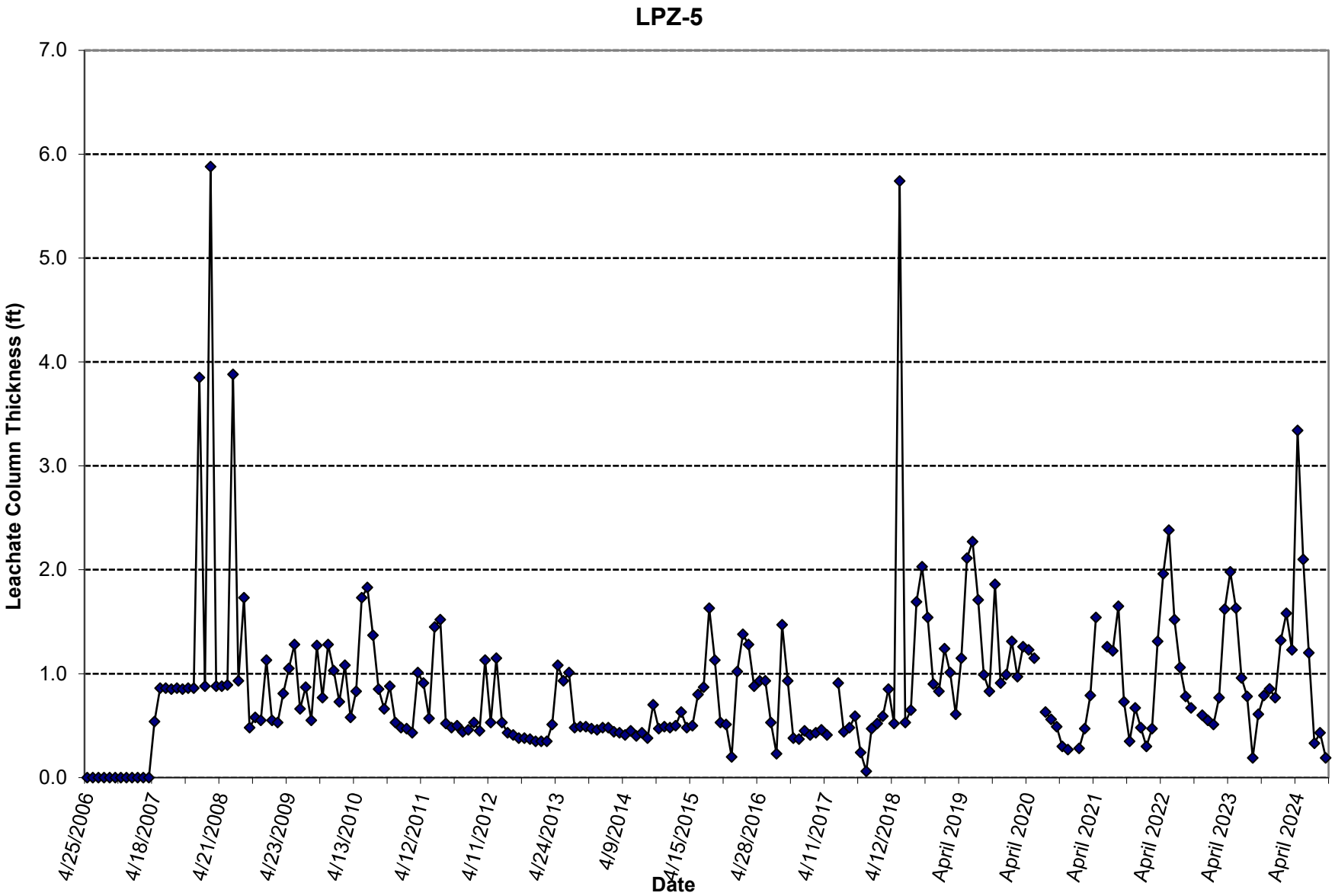
6) NM denotes Not Measured.


LPZ-1
Leachate Column Thickness (ft)
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
May-91
May-92
May-93
May-94
May-95
May-96
May-97
May-98
May-99
May-00
May-01
May-02
May-03
May-04
May-05
May-06
May-07
May-08
May-09
May-10
May-11
May-12
May-13
May-14
May-15
May-16
May-17
May-18
May-19
May-20
May-21
May-22
May-23
May-24
Date


LPZ-2
Leachate Column Thickness (ft)
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
May-91
May-92
May-93
May-94
May-95
May-96
May-97
May-98
May-99
May-00
May-01
May-02
May-03
May-04
May-05
May-06
May-07
May-08
May-09
May-10
May-11
May-12
May-13
May-14
May-15
May-16
May-17
May-18
May-19
May-20
May-21
May-22
May-23
May-24
Date


LPZ-3
Leachate Column Thickness (ft)
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
May-91
May-92
May-93
May-94
May-95
May-96
May-97
May-98
May-99
May-00
May-01
May-02
May-03
May-04
May-05
May-06
May-07
May-08
May-09
May-10
May-11
May-12
May-13
May-14
May-15
May-16
May-17
May-18
May-19
May-20
May-21
May-22
May-23
May-24
Date


LPZ-4
Leachate Column Thickness (ft)
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
May-91
May-92
May-93
May-94
May-95
May-96
May-97
May-98
May-99
May-00
May-01
May-02
May-03
May-04
May-05
May-06
May-07
May-08
May-09
May-10
May-11
May-12
May-13
May-14
May-15
May-16
May-17
May-18
May-19
May-20
May-21
May-22
May-23
May-24
Date


LPZ-5
Leachate Column Thickness (ft)
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
4/25/2006
4/18/2007
4/21/2008
4/23/2009
4/13/2010
4/12/2011
4/11/2012
4/24/2013
4/9/2014
4/15/2015
4/28/2016
4/11/2017
4/12/2018
April 2019
April 2020
April 2021
April 2022
April 2023
April 2024
Date

Attachment B

Leachate Quality Testing Results

Historical Leachate Analytical Results
Climax Molybdenum Company Industrial Landfill

	Semiannual Parameters																									
										Dissolved Metals				Total Metals												
Date	pH	Sp Cd	Temp F	NH3-N	Cl	COD	F	SO4	TSS	Fe	Mo	Na	Se	Al	As	B	Cd	Fe	Li	Mn	Mo	Na	Se	Sn	Sr	W
10/14/93	6.74	876	56	0.83	18	16.4	0.51	93	NM	0.07	0.1	59	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/13/94	7.33	1,553	55	0.45	22	34.1	1.55	574	NM	0.08	1.0	131	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/06/94	9.79	9,550	72	0.04	254	130.5	26	2,758	NM	0.14	3.4	2,190	0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/18/95	7.77	2,250	53	1.24	48	22.5	6.45	734	NM	0.04	0.8	491	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/11/95	7.15	4,000	61	0.70	99	40.0	4.95	1,363	NM	0.08	0.7	669	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/11/96	7.83	1,296	56	0.98	22	25.0	0.9	226	NM	0.08	0.1	158	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/28/96	7.04	1,783	57	0.26	64	5.5	1.7	405	NM	0.03	0.1	142	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/25/97	7.06	1,375	59	0.08	20	17.1	1.24	300	NM	0.14	0.1	106	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/20/97	7.37	2,010	58	0.40	52	16.0	1.89	563	NM	0.26	1.7	242	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
03/26/98	7.34	1,277	55	0.22	25	20.3	0.81	347	NM	0.48	0.1	114	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/13/98	7.07	1,383	58	0.21	208	7.4	1.06	255	NM	0.71	0.0	67	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
03/25/99	7.06	1,256	52	0.21	12	18.4	0.89	449	NM	0.14	0.0	68	0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/14/99	8.45	3,600	57	0.15	77	27.0	6.97	1,480	NM	0.07	9.6	710	0.03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/13/00	8.94	3,800	55	0.65	90	30.7	10.5	1,288	NM	0.22	4.0	1,095	0.03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/20/00	8.93	5,020	60	0.19	121	47.9	13.4	1,500	NM	0.05	1.0	1,085	0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/20/01	8.35	3,300	55	0.19	73	22.4	3.96	1,260	NM	<0.03	9.2	525	0.03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/03/01	7.98	4,060	59	0.73	122	27.9	5.66	1,735	NM	<0.03	4.5	713	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/18/02	7.88	2,960	59	0.77	56	16.2	4.41	1,053	NM	<0.03	6.4	445	<0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/15/02	7.91	3,300	59	0.57	43	29.7	4.76	1,425	NM	0.03	4.3	563	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/15/03	7.66	2,620	52	0.31	72	20.7	3.20	902	NM	0.36	6.5	412	0.06	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/08/03	7.42	2,670	60	0.10	72	15.3	1.90	1,152	NM	1.85	16.0	196	0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/26/04	7.26	484	55	0.08	90	38.3	0.50	105	NM	1.03	1.6	13	0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/21/04	7.96	3,900	56	<0.05	85	22.1	5.03	1,491	NM	0.10	6.7	676	0.03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/26/05	7.23	2,280	51	0.30	19	22.0	2.08	77	NM	0.06	12.0	197	0.08	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/05/05	7.52	428	64	0.98	11	52.8	1.88	53	NM	0.07	1.2	53	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/26/06	8.15	2,510	51	1.52	116	22.3	2.94	1,346	NM	0.33	26.0	288	0.05	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/10/06	7.52	3,240	56	1.12	179	30.7	3.74	1,581	NM	<0.03	20.0	395	0.09	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/17/07	7.08	2,250	52	0.40	800	14.4	1.73	800	NM	0.40	0.1	172	0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/10/07	7.75	6,470	59	0.13	222	31.1	6.26	3,038	NM	<0.03	38.0	1,015	0.06	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/23/08	7.55	1,856	54	0.79	48	21.9	1.03	762	NM	0.03	16	210	0.05	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/14/08	7.84	6,600	56	0.94	72	24.6	9.62	1,942	NM	<0.05	5.8	1,090	0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/24/09	7.48	2,200	52	0.79	51	17.3	2.86	2,284	NM	<0.05	0.5	288	<0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/20/09	7.04	2,738	60	0.51	61	17.0	2.14	1,312	NM	<0.20	11.0	262	0.04	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/14/10	7.28	2,384	55	0.60	66	16.3	2.36	804	NM	<0.05	8.4	266	<0.05	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/07/10	7.77	3,362	61	0.49	75	22.6	3.19	1,655	NM	<0.04	8.2	455	<0.06	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/13/11	6.95	2,296	53	0.62	53	19.1	1.59	1,100	NM	<0.45	6.7	264	<0.09	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/06/11	8.72	7,483	58	0.56	223	49.8	10.50	3,450	NM	<0.04	18.0	1,835	<0.06	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/12/12	8.33	4,746	51	1.50	110	37.7	6.03	2,042	NM	<0.06	12.0	945	<0.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/10/12	7.82	3,759	52	0.17	145	30.5	2.54	2,098	NM	<0.04	21.0	404	<0.64	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/25/13	7.45	2,629	50	0.31	37	24.5	2.83	1,066	NM	<0.03	10.0	305	<0.43	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/09/13	9.11	8,987	57	0.35	224	68.5	16.50	3,150	NM	<0.07	13.0	2,354	<0.11	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
4/10/2014	7.34	1,708	49	0.23	33	19.0	1.70	573	NM	<0.03	2.5	167	<0.20	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/07/14	7.46	3,433	58	0.45	62	30.0	4.46	1,397	NM	<0.05	7.4	690	<0.62	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
4/16/2014	8.37	3,324	51	0.32	44	26.0	4.48	1,100	NM	<0.18	NM	NM	NM	<0.1	0.02	0.05	0.001	2.8	0.01	2.2	5.9	620	0.26	<0.1	0.38	13
10/13/2015	8.99	5,530	58	<0.05	85	94.0	7.60	2,200	NM	<0.06	NM	NM	NM	<0.1	0.02	0.13	<0.02	1.2	<0.01	0.22	15	1200	0.20	<0.1	0.36	23
5/25/2016	NM	NM	NM	0.20	61	23.0	6.00	1,700	NM	<0.02	NM	NM	NM	<0.1	0.03	0.21	<0.02	0.8	0.01	0.7	14.0	700	1.00	<0.1	0.54	13
10/11/2016	8.91	6,079	61	0.19	89	49.0	8.92	2,300	2.0	<0.02	NM	NM	NM	<0.1	0.05	<1.0	<0.02	0.09	<0.01	0.02	12	1500	0.87	<0.1	0.34	31
4/11/2017	8.28	2,674	64	<0.05	29	29.0	NM	1,100	3.0	<0.02	NM	NM	NM	NM	0.04	NM	<0.02	1.3	0.01	1	6	340	0.81	NM	0.48	NM
10/19/2017	8.17	2,531	61	<0.05	5.9	26.0	NM	46	<1	<0.03	NM	NM	NM	NM	<0.01	NM	<0.02	0.03	0.03	1.4	<0.05	56	<0.01	NM	0.68	NM
4/12/2018	7.98	2,730	64	<0.2	34.8	19.6	NM	1,340	5.1	<0.5	NM	NM	NM	NM	0.00269	NM	0.00204	0.325	0.00568	0.593	8.07	293	1.49	NM	0.532	NM
8/2/2018	8.11	3,015	71	1.07	143	40.7	NM	2,430	282.0	<0.698	NM	NM	NM	NM	0.0221	NM	0.00509	0.346	<0.03	1.18	28.5	632	0.774	NM	0.854	NM
4/9/2019	7.47	2,109	64	<0.2	20.8	13.1	NM	1,040	6.1	<0.57	NM	NM	NM	NM	0.00243	NM	0.00121	1.77	0.0166	1.13	5.23	168	0.34	NM	0.59	NM
8/28/2019	7.48	3,999	71	<0.5	104	39.3	NM	2,550	11.8	NM	NM	NM	NM	NM	0.0117	NM	0.00824	0.129	0.00856	0.429	17.2	951	0.657	NM	0.638	NM
3/16/2020	7.57	1,149	43	NM	140	11.7	NM	129	16.4	NM	NM	NM	NM	NM	0.00098	NM	5E-05	0.912	0.00255	0.0361	0.0568	88.9	0.008	NM	0.245	NM
7/28/2020	NM	NM	NM	0.29	67.5	NM	NM	1,680	415.0	NM	NM	NM	NM	NM	0.292	NM	0.00308	4.48	0.0108	0.534	8.62	784	0.435	NM	0.546	NM
3/18/2021	7.98	NM	NM	<0.5	68.2	26.5	NM	88	22.3	NM	NM	NM	NM	NM	0.00218	NM	0.00012	2.83	0.00253	0.0752	0.233	44.5	0.039	NM	0.109	NM
9/1/2021	7.62	NM	NM	0.19	69.5	33.9	NM	2,150	3.0	NM	NM	NM	NM	NM	0.00373	NM	0.00481	1.02	0.0094	0.667	9.35	606	0.517	NM	0.773	NM
6/29/2022	8.22	NM	58	<0.5	72.1	41.4	NM	2,280	17.0	NM	NM	NM	NM	NM	0.00738	NM	0.00554	1.37	0.0131	0.545	8.75	745	0.555	NM	0.787	NM
8/1/2022	8.34	NM	59	<0.5	110	54.1	NM	2,930	47.3	NM	NM	NM	NM	NM	0.0138	NM	0.003	1.12	0.00884	0.182	9.7	1240	0.441	NM	0.654	NM
4/7/2023	NM	NM	NM	<0.5	31.3	25.3	NM	1,500	8.3	NM	NM	NM	NM	NM	0.00326	NM	0.00191	2.48	0.0071	1.57	5.95	289	1.030	NM	0.665	NM
7/28/2023	NM	NM	NM	0.22	88.1	43.2	NM	2,630	10.5	NM	NM	NM	NM	NM	0.00687	NM	0.00429	0.793	0.00974	0.418	10.9	946	0.449	NM	0.738	NM
5/23/2024	NM	NM	NM	<0.500	52.3	32.7	NM	2,350	494.0	NM	NM	NM	NM	NM	0.0445	NM	0.00182	13.8	0.0151	1.84	7.08	467	0.738	NM	0.898	NM
7/30/2024	NM	NM	NM	0.23	55.4	79.6	NM	1,880	1,500.0	NM	NM	NM	NM	NM	0.0126	NM	0.00215	3.67	0.00787	0.697	6.08	640	0.583	NM	0.692	NM

Note: Data provided by Climax Molybdenum Company.
NM - Not Measured