

July 24, 2026
File No. 27226134.00

Mr. Khalid Al Gharrawi
Iowa Department of Natural Resources
Land Quality Bureau
6200 Park Avenue
Des Moines, Iowa 50321

Subject: 2026 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report
Alter Highway 22 Monofill
Permit No. 82-SDP-04-89C

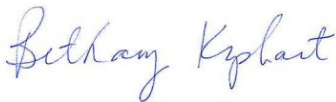
Dear Khalid:

SCS Engineers has completed the required groundwater monitoring and statistical evaluation at the Alter Highway 22 Monofill (Monofill) for the 2026 reporting year. Our services were performed in general accordance with Iowa Administrative Code (IAC) 567-115.26(4), the closure permit requirements for implementation of the Hydrologic Monitoring System Plan (HMSP), and subsequent permit amendments. Please find enclosed a copy of the 2026 Annual Water Quality Report for the Monofill.

Additionally, evaluations of the leachate control system and landfill gas monitoring program for the Monofill are included in this report. The 2026 Leachate Control System Performance Evaluation Report and Landfill Gas Annual Report for the Monofill are included as Appendices F and G, respectively, to the Annual Water Quality Report.

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

Sincerely,



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2026 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report

Alter Highway 22 Monofill
Solid Waste Permit No. 82-SDP-04-89C

Prepared for:

Alter Trading Corporation

SCS ENGINEERS

27226134.00 | July 2026

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CERTIFICATION

Prepared by: Bethany J Kephart

Date: 7/24/2026

Typed: Bethany Kephart

Reviewed by: Kevin Jensen

Date: 7-24-2026

Typed: Kevin Jensen

	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa. <u>Bethany J Kephart</u> Date: <u>7/24/26</u> Bethany Kephart, P.E. License No. 17120 My license renewal date is December 31, 2027. Pages or sheets covered by this seal: <u>All except Appendix B-1.</u>
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EXECUTIVE SUMMARY

ES.1 PERIOD OF REPORT COVERAGE

SCS Engineers (SCS), on behalf of the Alter Trading Corporation, has completed the required groundwater sampling for the Alter Trading Corporation Highway 22 Monofill (Monofill). The purpose of this Annual Water Quality Report (AWQR) is to document and statistically evaluate the groundwater sampling results since the 2025 AWQR up to and including the 2026 annual sampling event. 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: Closed, Closure Permit
- Types of waste accepted: Industrial
- Applicable IAC rules: 567-115.26

ES.4 COMMENTS

The following summarizes points of special emphasis:

- Analysis of Total Organic Halogens could not be performed due to a laboratory error. Insufficient sample volume remained and therefore the test was unable to be completed.
- The obstruction in monitoring well MW-7R was removed and the well redeveloped in early March 2026. A groundwater sample and measurements were obtained during the May 2026 annual sampling event. No further monitoring well issues were encountered during the 2026 sampling event.

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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
VOC = Volatile Organic Compound

2.0 SITE BACKGROUND

2.1 SITE LOCATION

The Alter Trading Corporation Highway 22 Monofill is depicted in **Figure 1**, Approved Monitoring Network. The Monofill property is located southeast of the intersection of Interstate 280 and Highway 22 (a.k.a. Rockingham Road) and is located in the NW $\frac{1}{4}$ of Section 8, Township 77 North, Range 3 East in Scott County, Iowa.

2.2 FACILITY

Background information regarding the Monofill was contained in the Remediation/Closure Plan dated March 2005 prepared by CPI Environmental Services, Inc. The following are excerpts from the report with additional supplemental information added as noted:

The Facility is approximately 117 acres in size. Approximately 12 acres has been used from the mid-to-late 1970's until the early 1990's for disposal of approximately 400,000 cubic yards [also estimated to be 250,000 tons] of automobile shredder fluff. The existing fill area consists of two unlined disposal phases (Phase 1 and Phase 2) separated by an east to southeast trending drainage ditch.

Phase 1, the northern most portion of the Monofill, is approximately 4 acres in size and contains an approximate two-foot thick soil cover with vegetative growth. Phase 2 is approximately 8 acres in size and is located south of Phase 1. Phase 2 final cover consists of a two-foot thick layer of compacted clay followed by a two-foot thick soil layer with vegetation.

In August 1995, the facility received a construction/operating permit (No. 82-SDP-4-89P) from IDNR to expand the disposal area south of Phase 2. The permit was issued following completion of the Final Permitting Document, prepared in 1995, that included an Engineering Design Report, Hydrogeologic Monitoring System Plan, Leachate Control Plan, Operations Plan and a Closure/Post-Closure Plan for the Facility. In the summer of 1996, construction of lined Cell 1 located south of Phase 2 was initiated. Improvements, including the installation of leachate extraction wells in Phases 1 and 2, placement of additional soil cover on Phase 1, and construction of final soil cover material on Phase 2, also were conducted during Cell 1 development.

The facility's leachate collection system in Phase 1 and 2 is comprised of extraction wells. There are three extraction wells in Phase 1 [EW-6 through EW-8] and five extraction wells in Phase 2 [EW-1 through EW-5, however, EW-1 was subsequently removed as part of landfill excavation activities]. The wells are constructed of three-foot diameter perforated and non-perforated Contech-2000 corrugated PVC pipe. Permanent sump pumps are present in each well. Leachate pumped from the wells enters into three-inch diameter HDPE piping and is gravity drained to a pumping station located northwest of Phases 1 and 2. The pump station is connected via a 2-inch diameter polyethylene pipe to a City of Davenport sanitary sewer manhole at the intersection of Kimmel Drive and Highway 22. Generated leachate is treated at the City of Davenport's wastewater treatment plant under permit number 2005-03-003.

The Hydrologic Monitoring System Plan (HMSP) monitoring network was revised after a Groundwater Quality Assessment Report (GWQAR) was submitted and approved by the DNR in September 2014. As part of the implementation of the GWQAR, the statistical process for assessing changes from background was modified to a method that could accommodate non-parametric data sets. The HMSP monitoring network revisions included abandonment of some monitoring wells, removal of some monitoring wells from the sampling program, and installation of new monitoring wells. The newly installed monitoring wells underwent the required first-year quarterly sampling during the 2015 reporting period.

A new HMSP configuration was submitted to the DNR in the GWQAR (Table 1-1) and approved in Permit Amendment #6 dated September 15, 2014 (Doc # 81198).

2.3 GEOLOGY OF THE SITE

The site geology is described as alluvial geology and bedrock geology. The subsections below contain descriptions of these two geologic units.

2.3.1 Alluvial Sediment Geology

Below is an excerpt of a description of the alluvial sediment geology from the Groundwater Quality Assessment Plan dated December 2004 prepared by CPI Environmental Services, Inc.

Alluvial sediments overlie bedrock and generally thicken toward the intermittent stream located between Phase I and Phase II of the Monofill. Alluvial sediments in the vicinity of the stream range from 20 feet at MW-8 to greater than 33 feet thick at MW-18. Alluvial sediments thin north of the stream with borings B-13 through B-15 (MW-7) indicating sediment thickness of 15 to 16 feet. Alluvial sediments thin south of the stream with boring B-20 (MW-9, MW-10, MW-11) through B-23 (located at the southern edge of Phase II) indicating sediment thickness of 4 to 6 feet. Alluvial sediments thicken from the southern edge of Phase II to the area of borings B-1 through B-10 where the average alluvial thickness is approximately 14 feet.

Alluvial sediments generally are composed of silts and clays with interbedded silty sands and sand lenses.

Below is an excerpt of the unconsolidated geology from the 1996 Annual Water Quality Summary Report dated December 1996, prepared by Foth & Van Dyke.

A hydrogeologic investigation was conducted at the site in 1991 by Shive-Hattery. The Hydrogeologic Investigation Report (HIR), dated November 8, 1991, was submitted to the IDNR for review. The geology of the site is comprised of alluvial sediments overlying shale, sandstone, and limestone. The alluvium is present across the entire site, ranging from 5 to 40 feet in thickness, and consists primarily of stratified sand, silt, and clay. The general direction of groundwater flow in the alluvium is southeasterly.

2.3.2 Bedrock Geology

Below is an excerpt of a description of the bedrock geology from the Groundwater Quality Assessment Plan dated December 2004 prepared by CPI Environmental Services, Inc.

Based on some of the original assessment work conducted in 1991 and 1992, the bedrock surface below the Monofill is comprised of shale except at the southern edge of the Monofill where the bedrock surface is composed of sandstone (B-21,

MW-22R, B-22/MW-12, B-25), siltstone (B-19), and interbedded conglomerate, sandstone and shale (B-24/MW-13, MW-14, and MW-15). In the area of borings B-1 through B-10 (south of the Monofill), alluvial sediments overlay shale.

Bedrock at the Monofill is composed of shale or interbedded sandstones, shales, and siltstones overlying limestone. Four borings are noted as extending into limestone: B-11, MW-21R, B-20, and B-24. At the northern edge of the Monofill, as defined by boring B-11 (MW-4, MW-5, MW-6) and MW-21R, approximately 41 to 50 feet of shale overlie limestone. At the southern edge of the Monofill, as defined by borings B-24 (MW-13, MW-14, MW-15) and B-20 (MW-9, MW-10, MW-11), approximately 28 to 62 feet of interbedded sandstones, shales, and siltstones overlie limestone. Bedrock overlying limestone thickens from the west to the east.

According to the IDNR's Open File Map 98-7, the surface bedrock at the Monofill is composed of the Pennsylvanian-aged Cherokee Group and Caseyville formation. Primary lithologies in the Cherokee Group and Caseyville formation are reported as gray shale and sandstone with secondary lithologies of black shale, siltstone, and coal and minor lithologies including conglomerate. Lithologies reported for the Cherokee Group and Caseyville formation correspond to lithologies described in site boring logs down to the top of limestone.

Limestone below the Monofill is likely from the Devonian-aged Cedar Valley Group, which is mined at the Linwood Mine and LaFarge Corporation's Davenport Cement Plant located approximately two to three miles southwest of the Monofill.

Below is an excerpt of the bedrock geology from the 1996 Annual Water Quality Summary Report dated December 1996, prepared by Foth & Van Dyke.

The uppermost bedrock beneath most of the site is shale ranging in thickness from 45 feet across the northern portion of the site to less than 10 feet across the southern portion. Interbedded sandstone and shale comprise the uppermost bedrock beneath the southern-most portion of the site. Underlying the shale and sandstone units is highly fractured limestone. The shale unit acts as an aquitard which separates the alluvial sediments from the underlying limestone across the northern two-thirds of the site. Across the southern one-third of the site, the alluvial, sandstone, and limestone units appear to be hydraulically connected. The general direction of groundwater flow in the limestone is northeasterly. A potential karst feature has been reported in the eastern portion of the site.

2.4 HYDROGEOLOGY OF THE SITE

The site hydrogeology is described as alluvial hydrogeology and bedrock hydrogeology. The subsections below contain descriptions of these two hydrogeologic units.

2.4.1 Alluvial Hydrogeology

Below is an excerpt of a description of the alluvial hydrogeology from the Groundwater Quality Assessment Plan dated December 2004 prepared by CPI Environmental Services, Inc.

Groundwater levels in wells screened in the alluvial deposits were plotted to establish the water table surface in the alluvium. Groundwater measurements were

collected on October 5 and 6, 2004 from monitoring wells MW-2, MW-3, MW-4, MW-7 and MW-9 and were used to construct the water table surface illustrated in Figure 3. [Figure 3 from the referenced report is not included in this report.] It may be significant to note that wells screening both the upper and the base of the alluvium were used to estimate the groundwater surface. Using the upper and basal wells may cause vertical gradients within the alluvium to influence the interpretation of the generalized hydraulic gradient of the alluvium.

Groundwater in the alluvium generally moves to the southwest, which corresponds to surface topography, the intermittent stream flow, and the location of the Mississippi River. From boring logs, preferential pathways in the alluvium may be sand and gravel lenses with a thickness of one foot or less, such as those identified in boring logs for MW-4, MW-7, and MW-9.

Based on the water table surface in Figure 3, the estimated gradient of groundwater flow to the southwest in the alluvium is 0.01 ft./ft. Hydraulic conductivity testing was performed by others during the 1990-1991 studies and measured values for monitoring wells MW-4, MW-7, and MW-9 of 2.89×10^{-4} , 8.35×10^{-4} and 2.70×10^{-3} cm/sec, respectively, for a mean hydraulic conductivity value of 1.27×10^{-3} cm/sec. Applying Darcy's equation, groundwater is calculated to move through the alluvium beneath both Phase 1 and Phase 2 of the Monofill (a width of approximately 920 feet) at a rate of 3 gallons per minute.

2.4.2 Bedrock Hydrogeology

Below is an excerpt of a description of the bedrock hydrogeology from the Groundwater Quality Assessment Plan dated December 2004 prepared by CPI Environmental Services, Inc.

Water levels in wells verifiably screened in limestone, i.e., wells with well logs and well construction information, were plotted to establish the potentiometric surface in the limestone bedrock. Wells verifiably screened in limestone included MW-6, MW-11, and MW-15 during the initial site assessments. Groundwater flow direction in the limestone for 1991 through 1992 is reported to be to the northeast, contrary to surface features and other apparent influencing factors, making MW-15 the original upgradient limestone well. Monitoring well MW-15 was abandoned due to construction of the newer lined cell and replaced with MW-106, believed to screen the shale or sandstone layer based on well depth.

Wells MW-1, MW-10, and MW-106 appear to screen the shale or sandstone zones and are assumed to represent a similar hydrogeologic zone. October 2004 groundwater elevations for the non-limestone bedrock (shale/sandstone) suggest that groundwater flow in this zone is to the southeast, as depicted in potentiometric surface presented in Figure 4. [Figure 4 from the referenced report is not included in this report.] Monitoring well MW-10 screens much deeper than MW-1 or MW-106 and the groundwater elevation in MW-10, which is very similar to the groundwater elevation in MW-11, may be influenced by the deeper (limestone) groundwater regime. The hydraulic gradient in the non-limestone bedrock wells is estimated to be 0.049 [ft/ft]. Sufficient data do not exist to estimate groundwater flow volumes through the shale or sandstone layers.

Monitoring well MW-21R was installed in 1996, and boring and well construction information for the well were reviewed. Monitoring well MW-21R has a similar total depth and geology to MW-6 and MW-11 and is screened in limestone from approximately 75 to 85 feet below ground surface. A potentiometric surface for the limestone in October 2004 was constructed from groundwater levels collected from MW-6, MW-11, and MW-21R, as illustrated in Figure 5. [Figure 5 from the referenced report is not included in this report.] Groundwater flow direction in the limestone is approximately west/southwest with a hydraulic gradient of 0.008 [ft/ft].

There is no obvious reason for the groundwater flow direction in 1991 to be to the northeast and the present flow direction to be generally to the southeast in shallow bedrock and west/southwest in the deeper limestone. [It should be noted that the discrepancy noted in the previous sentence is the result of a misinterpretation of the groundwater contour maps. The 1991 Shive-Hattery map and the 2004 CPI Environmental map are oriented 180° opposite each other. The groundwater flow direction depicted on the 1991 map is in fact to the west/southwest in the deeper limestone, which is consistent with the 2004 deeper limestone groundwater flow direction.] At present, the upgradient shallow bedrock well is MW-1, and the upgradient limestone well is MW-21R, both located near the eastern corner of Phase 1. Mean hydraulic conductivity values to the bedrock were measured by others in 1991 as 3.80×10^{-7} [cm/sec] for the shale, 2.93×10^{-4} [cm/sec] for the sandstone and 4.97×10^{-6} cm/sec for the limestone. Applying Darcy's equation, groundwater is calculated to move through the limestone beneath both Phase 1 and Phase 2 of the Monofill (a width of approximately 920 feet) at a rate of 0.009 gallons per minute.

3.0 FIGURES DISCUSSION

The following figures are attached.

3.1 FIGURE 1 – APPROVED MONITORING NETWORK

The Landfill property and hydrologic monitoring system plan (HMSP) network are depicted in **Figure 1**. **Figure 1** indicates the locations of each monitoring well and its respective monitoring program as of the beginning of this reporting period.

3.2 FIGURE 2 – AQUIFER (ALLUVIAL) GROUNDWATER CONTOURS

A groundwater contour map based on water levels measured in the Alluvial Aquifer during the May 2026 annual groundwater sampling event is included as **Figure 2**. **Figure 2** indicates a generally southeasterly groundwater flow direction towards the Mississippi River. Leachate levels and elevations are discussed in the Leachate Control System Performance Evaluation Report in **Appendix F**.

3.3 FIGURE 3 – AQUIFER (BEDROCK) GROUNDWATER CONTOURS

A groundwater contour map based on water levels measured in the Bedrock Aquifer during the May 2026 annual groundwater sampling event is included as **Figure 3**. **Figure 3** indicates a generally easterly groundwater flow direction towards the Mississippi River.

4.0 QA/QC SUMMARY

Date indicates the date(s) of sampling.

4.1 MAY 14, 2026 (2026 ANNUAL SAMPLING EVENT)

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

5.0 DATA EVALUATION

Statistical evaluation in accordance with the Groundwater Quality Assessment Report dated March 31, 2014 (Doc #79942) and approved by DNR in Permit Amendment #6 dated September 15, 2014 (Doc #81198) was conducted for the groundwater analytical data collected during the 2026 annual sampling event. The statistical evaluation for samples collected during the 2026 annual sampling event is located in **Appendix D** of this report.

5.1 DATA EVALUATION

Groundwater monitoring for the Monofill consists of samples from one monitoring well along the northeast side (MW-7R), one monitoring well along the east side (MW-8R), one monitoring well along the southeast side (MW-9), one monitoring well along the southwest side (MW-23), and three upgradient monitoring points are located along the northwest side (MW-3, MW-4, and MW-5) of the Monofill.

Seven prediction limit exceedances were measured based on 2026 sampling results as listed in **Table 1** compared to six prediction limit exceedances based on 2025 sampling results reported in the 2025 AWQR. Four of the seven prediction limit exceedances detected from 2026 sampling results were attributed to monitoring well MW-9.

The benzene concentration in monitoring well MW-9 was 3.92 ug/L with a laboratory reporting limit of 0.50 ug/L and a method detection limit of 0.220 ug/L. Benzene was not detected in the 2025 sample (<5.0 ug/L reported), but the 2025 analysis had a higher laboratory detection limit of 5.0 ug/L with a method detection limit of 2.20 ug/L. The concentration of arsenic detected in monitoring well MW-9 during the 2026 sampling event was 0.121 mg/L, slightly higher than the concentration detected in the 2025 sampling event of 0.115 mg/L, but was still below the historical high concentration detected in 2018 sampling event of 0.149 mg/L.

Exceedances of the arsenic action level were measured in upgradient monitoring well MW-4 and downgradient monitoring well MW-9 during the 2026 sampling event. These two monitoring wells have regularly exceeded the action levels for arsenic since sampling for total arsenic began in 2017 and when sampling for dissolved arsenic was being conducted prior to 2017.

5.2 TRENDING IN MONITORING WELLS

Statistically significant increasing trends at a 99% confidence level ($\alpha=0.01$) using the most recent eight samples were identified in two monitoring well/constituent pairs by Mann-Kendall analysis during this reporting period. Statistically significant trends at a 99% confidence level ($\alpha=0.01$) using the most recent eight samples were not identified in any other of the monitoring well/constituent pairs during this reporting period. The trend analysis is included in Attachment E of **Appendix D** of this report. The statistically significant trends were as follows:

Monitoring Point	Constituent	Trend
MW-9	Iron	Increasing
MW-9	COD	Increasing

Although not necessarily statistically significant, the Mann-Kendall statistics can provide an indication of general trending in the data. Trend indications for wells in the monitoring program are shown in the table below. The statistics used to develop the general trending differ from the Mann-Kendall statistics used in the diagnostics section of the statistical evaluation in that a much lower

trend threshold is applied for the general trending information ($\alpha=0.20$ versus $\alpha=0.01$). Trends classified as decreasing or increasing exhibited a statistically significant trend with 80% confidence using the most recent eight data points. Trends classified as stable did not exhibit a statistically significant trend with 80% confidence using the eight most recent data points. A summary of Mann-Kendall statistics by constituent in each monitoring point is included in **Table 10** of this report.

Trending in Monitoring Wells				
Monitoring Well	Decreasing Trends	Stable Trends	Increasing Trends	Number of Constituents Analyzed
MW-3 (u)	0.00%	100.00%	0.00%	8
MW-4 (u)	0.00%	87.50%	12.50%	8
MW-5 (u)	14.29%	71.43%	14.29%	7
MW-7R	14.29%	71.43%	14.29%	7
MW-8R	0.00%	71.43%	28.57%	7
MW-9	11.11%	22.22%	66.67%	9
MW-23	0.00%	85.71%	14.29%	7
Site Wide	5.66%	71.70%	22.64%	53

(u) indicates an upgradient monitoring point.

Review of the Mann-Kendall statistics indicated that approximately 77% of the Mann-Kendall statistics were considered stable or decreasing following the 2026 annual statistical evaluation with one of the decreasing trends being pH. There were twelve monitoring well/constituent pairs with generally increasing trends. The monitoring well/constituent pairs with increasing trends and decreasing pH trends are discussed in the following table.

Monitoring Well	Constituent Name	Comments
MW-4 (u)	COD	Based on four actual detections, one J flag detection, and three non-detects. Highest concentration of 27.7 mg/L measured in 2024.
MW-5 (u)	COD	Based on two actual detections and six non-detects. Highest concentration of 48.8 mg/L measured in 2024.
MW-7R	Nitrogen, Ammonia	Based on two J flag detections and six non-detects. Highest concentration of 0.329 mg/L measured in 2024.
MW-8R	Chloride	Highest concentration of 236 mg/L measured in 2025.
MW-8R	Nitrogen, Ammonia	Based on two J flag detections and six non-detects. Highest concentration of 0.268 mg/L measured in 2024.
MW-9	Arsenic	Highest concentration in recent trend of 0.121 mg/L measured in 2026. These detections were below the historical maximum of 0.149 mg/L measured in 2018.
MW-9	COD	Highest concentration of 1270 mg/L measured in 2025. These detections were below the historical maximum of 1600 mg/L measured in 1996.

Monitoring Well	Constituent Name	Comments
MW-9	Chloride	Highest concentration of 723 mg/L measured in 2026.
MW-9	Iron	Highest concentration of 27.7 mg/L measured in 2026.
MW-9	pH (Decreasing)	Range of pH measurements between 6.79 and 7.38 S.U.
MW-9	Specific Conductance	Highest concentration of 6029 $\mu\text{S}/\text{cm}$ measured in 2024.
MW-9	Total Organic Halogens	Highest concentration of 1.56 mg/L measured in 2024.
MW-23	Nitrogen, Ammonia	Highest concentration of 4.00 mg/L measured in 2024.

Of the 12 increasing trends at 80% confidence level and the one decreasing trend for pH at 80% confidence level, two of the monitoring well/constituent pair trends were associated with the upgradient monitoring wells. The pH value of the one monitoring well/constituent pair found to be decreasing at an 80% confidence level were all neutral to circumneutral. Overall, a generally continued stability towards improvement of groundwater quality at the site was noted, with the exception of monitoring well MW-9.

6.0 RECOMMENDATIONS

6.1 SITE IMPACT ON GROUNDWATER

Concentrations of the majority of analyzed parameters in groundwater at the Monofill remain stable to decreasing, with the partial exception of monitoring well MW-9. Overall, a generally continued stability of groundwater quality at the site was noted.

6.2 PROPOSED MONITORING

The groundwater monitoring program is summarized in **Tables 1** through **3**. No changes to the HMSP monitoring program as detailed in revision #14 to the site closure permit (Doc # 110352) are recommended at this time.

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

- 1 Monitoring Program Summary
- 2 Monitoring Program Implementation Schedule
- 3 Monitoring Well Maintenance and Performance Re-Evaluation
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Immediately Preceding Control Limit Exceedances
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Table 1
Monitoring Program Summary
2026 Annual Water Quality Report
Alter Highway 22 Monofill
Permit No. 82-SDP-04-89C

Monitoring Well	Formation ⁽¹⁾	Current Monitoring Program	Change for Next Sampling Event	Prediction Limit Exceedances	Total Number of Samples in Each Monitoring Program Since January 1, 2018		
					Routine	Supplemental	Remedial Action
MW-3	Lean Clay/Silty Lean Clay/Sandy Lean Clay	Background	None	N/A	10	-	-
MW-4	Sand/Clay	Background	None	N/A	10	-	-
MW-5	Sand/Clay/Gravel	Background	None	N/A	10	-	-
MW-7R	Sandy Silty Clay/Sand and Gravel	Detection	None	COD	10	-	-
MW-8R	Sandy Silty Clay/Sand	Detection	None	None	10	-	-
MW-9	Sand/Shale	Detection	None	COD, Chloride, Nitrogen-Ammonia, Specific Conductance	10	-	-
MW-23	Sandy Silty Clay/Sand	Detection	None	COD, Nitrogen-Ammonia	10	-	-

Notes:

⁽¹⁾ Obtained from screened interval on boring logs.

⁽²⁾ COD - Chemical Oxygen Demand

Table 2
Monitoring Program Implementation Schedule
2026 Annual Water Quality Report
Alter Highway 22 Monofill
Permit No. 82-SDP-04-89C

Monitoring Well	Recent Sampling Dates and Constituents	Upcoming Sampling Dates and Constituents
	5/6/2026	2027 Annual Event
MW-3	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Iron, Arsenic, Benzene, Total Suspended Solids	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Iron, Arsenic, Benzene, Total Organic Halogens; Total Suspended Solids
MW-4	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Iron, Arsenic, Benzene, Total Suspended Solids	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Iron, Arsenic, Benzene, Total Organic Halogens; Total Suspended Solids
MW-5	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Iron, Arsenic, Benzene, Total Suspended Solids	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Iron, Arsenic, Benzene, Total Organic Halogens; Total Suspended Solids
MW-7R	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Iron, Total Suspended Solids	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Iron, Total Organic Halogens; Total Suspended Solids
MW-8R	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Iron, Total Suspended Solids	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Iron, Total Organic Halogens; Total Suspended Solids
MW-9	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Arsenic, Iron, Benzene, Total Suspended Solids	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Arsenic, Iron, Benzene, Total Organic Halogens; Total Suspended Solids
MW-23	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Iron, Total Suspended Solids	Ammonia-Nitrogen, COD, Chloride, pH, Specific Conductance, Iron, Total Organic Halogens; Total Suspended Solids

Notes: COD - Chemical Oxygen Demand

Table 3
Monitoring Well Maintenance and Performance Re-Evaluation Schedule
2026 Annual Water Quality Report
Alter Highway 22 Monofill
Permit No. 82-SDP-04-89C

Compliance with:	2024	2025	2026	2027
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 November 7, 2016 (Doc# 87656)

Table 4
Monitoring Well Performance and Maintenance Summary
2026 Annual Water Quality Report
Alter Highway 22 Monofill
Permit No. 82-SDP-04-89C

Well	Top of Casing	Top of Screen	Total Depth	Description	Date of Measurement	Maximum Depth
					5/6/2026	Discrepancy (ft)
MW-3	573.30	566.10	21.0	Groundwater Level (ft)	6.32	0.7
				Groundwater Elevation (Ft MSL)	566.98	
				Measured Well Depth (ft)	20.3	
				Submerged screen	Y	
MW-4	567.79	557.90	14.9	Groundwater Level (ft)	4.61	0.3
				Groundwater Elevation (Ft MSL)	563.18	
				Measured Well Depth (ft)	14.6	
				Submerged screen	Y	
MW-5	567.74	548.20	24.5	Groundwater Level (ft)	3.42	2.7
				Groundwater Elevation (Ft MSL)	564.32	
				Measured Well Depth (ft)	21.8	
				Submerged screen	Y	
MW-7R	558.26	552.70	12.6	Groundwater Level (ft)	4.19	0.5
				Groundwater Elevation (Ft MSL)	554.07	
				Measured Well Depth (ft)	12.1	
				Submerged screen	Y	
MW-8R	557.94	552.20	12.8	Groundwater Level (ft)	4.49	0.7
				Groundwater Elevation (Ft MSL)	553.45	
				Measured Well Depth (ft)	12.1	
				Submerged screen	Y	
MW-9	556.50	549.50	12.0	Groundwater Level (ft)	3.58	0.1
				Groundwater Elevation (Ft MSL)	552.92	
				Measured Well Depth (ft)	11.9	
				Submerged screen	Y	
MW-23	572.48	554.90	29.5	Groundwater Level (ft)	15.81	0.8
				Groundwater Elevation (Ft MSL)	556.67	
				Measured Well Depth (ft)	28.7	
				Submerged screen	Y	

Comments:

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

MW-23: The monitoring well measured 2.7 ft shallower than when originally installed, but the monitoring well has measured consistently shallower over the last several years. In addition, since the monitoring well produced sufficient groundwater for sampling it is likely that the well is functioning properly.

Table 5
Background and GWPS Summary
2026 Annual Water Quality Report
Alter Highway 22 Monofill
Permit No. 82-SDP-04-89C

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	Action Level	Source
Inorganics										
Arsenic	mg/L	36	24	0.000675	0.206	0.0185	0.206	PL (NP)	0.01 mg/L	MCL/SWS
Chemical Oxygen Demand	mg/L	181	92	2.5	48.8	7.46	48.8	PL (NP)	-	-
Chloride	mg/L	182	181	0.05	284.0	129.68	295.9	PL (P)	-	-
Iron	mg/L	36	35	0.121	95.75	7.94	103.0	PL (P)	-	-
Nitrogen, Ammonia	mg/L	182	77	0.086	0.909	0.187	0.909	PL (NP)	30.0 mg/L	HAL
pH	S.U.	174	174	6.38	8.91	7.26	8.244	PL (P)	-	-
Specific Conductance	uS/cm	174	174	600	2250	1154	1861	PL (NP)	-	-
Total Organic Halogens	mg/L	100	70	0.005	0.584	0.045	0.584	PL (NP)	-	-

Notes:

- 1) Background levels based on calculated prediction limits or reporting limit, as applicable.

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

Table 6
Summary of Well/Detected Constituent Pairs With No Immediately Preceding Prediction Limit Exceedances

2026 Annual Water Quality Report

Alter Highway 22 Monofill

Permit No. 82-SDP-04-89C

2026 Sampling Event

Well	Constituent	Units	Most Recent Result	Background Standard
MW-23	COD	mg/L	50.3	48.8

Comments:

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

Table 7
Summary Table of Ongoing and Newly Identified Prediction Limit Exceedances
2026 Annual Water Quality Report
Alter Highway 22 Monofill
Permit No. 82-SDP-04-89C

Key

	Denotes ongoing prediction limit exceedances or double quantifications (as applicable) that were identified as such during this reporting period and the previous reporting period.
	Denotes newly identified prediction limit exceedances or double quantifications (as applicable) in the 2026 reporting period. Newly identified is defined as occurring at least once in the current reporting period but not in the immediately preceeding reporting period.

Well	Constituent	Units	Most Recent Result	Background Standard	Action Level/ Statewide Standard
MW-7R	COD	mg/L	73.1	48.8	-
MW-9	COD	mg/L	877	48.8	-
	Chloride	mg/L	723	295.9	-
	Nitrogen-Ammonia	mg/L	2.44	0.909	30
	Specific Conductance	μS/cm	4,040	1,861	-
MW-23	COD	mg/L	50.3	48.8	-
	Nitrogen-Ammonia	mg/L	2.59	0.909	30

Notes: COD - Chemical Oxygen Demand

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
2026 Annual Water Quality Report
Alter Highway 22 Monofill
Permit No. 82-SDP-04-89C

The Summary of Groundwater Chemistry is located in Appendix C.

Table 9
Historical Prediction Limit and Action Level Exceedances
2026 Annual Water Quality Report
Alter Highway 22 Monofill
Permit No. 82-SDP-04-89C

Key

	Prediction Limit Exceedance/Double Quantification (as applicable)
X	Action Level Exceedance

Well	Constituent	2023	2024	2025	2026
MW-4 (u)	Arsenic	X	X	X	X
MW-7R	COD				
	Specific Conductance				
MW-8R	COD				
MW-9	Arsenic	X	X	X	X
	Benzene		X		
	Chloride				
	COD				
	Nitrogen-Ammonia				
	Specific Conductance				
	Total Organic Halogens				
MW-23	COD				
	Nitrogen-Ammonia				
	Specific Conductance				

Notes:

- 1) (u) denotes upgradient monitoring well
- 2) Tables does not include action level exceedances of supplemental parameters required by the DNR letter dated January 25, 2023 (Doc # 105590) for the 2023 and 2024 sampling events.
- 3) COD - Chemical Oxygen Demand

Table 10
Groundwater Quality Assessment Plan Trend Analysis
2026 Annual Water Quality Report
Alter Highway 22 Monofill
Permit No. 82-SDP-04-89C

Monitoring Well	Constituent Name	Calculated Statistic		
		Decreasing Trend	Stable Trend	Increasing Trend
MW-3	Arsenic		-3	
	Chemical Oxygen Demand		10	
	Chloride		11	
	Iron		2	
	Nitrogen, Ammonia		2	
	pH		-10	
	Specific Conductance		-2	
	Total Organic Halogens		6	
MW-4	Arsenic		6	
	Chemical Oxygen Demand			13
	Chloride		0	
	Iron		4	
	Nitrogen, Ammonia		8	
	pH		-7	
	Specific Conductance		-2	
	Total Organic Halogens		12	
MW-5	Chemical Oxygen Demand			16
	Chloride		-12	
	Iron		-12	
	Nitrogen, Ammonia		11	
	pH		-2	
	Specific Conductance	-18		
	Total Organic Halogens		4	
MW-7R	Chemical Oxygen Demand		-10	
	Chloride		-8	
	Iron		0	
	Nitrogen, Ammonia			15
	pH		4	
	Specific Conductance	-14		
	Total Organic Halogens		4	
MW-8R	Chemical Oxygen Demand		-11	
	Chloride			16
	Iron		-12	
	Nitrogen, Ammonia			17
	pH		0	
	Specific Conductance		-4	
	Total Organic Halogens		8	
MW-9	Arsenic			20
	Benzene		11	
	Chemical Oxygen Demand			22
	Chloride			20
	Iron			24
	Nitrogen, Ammonia		11	
	pH	-18		
	Specific Conductance			18
MW-23	Total Organic Halogens			18
	Chemical Oxygen Demand		4	
	Chloride		-12	
	Iron		-10	
	Nitrogen, Ammonia			14
	pH		-12	
	Specific Conductance		-10	
	Total Organic Halogens		-2	

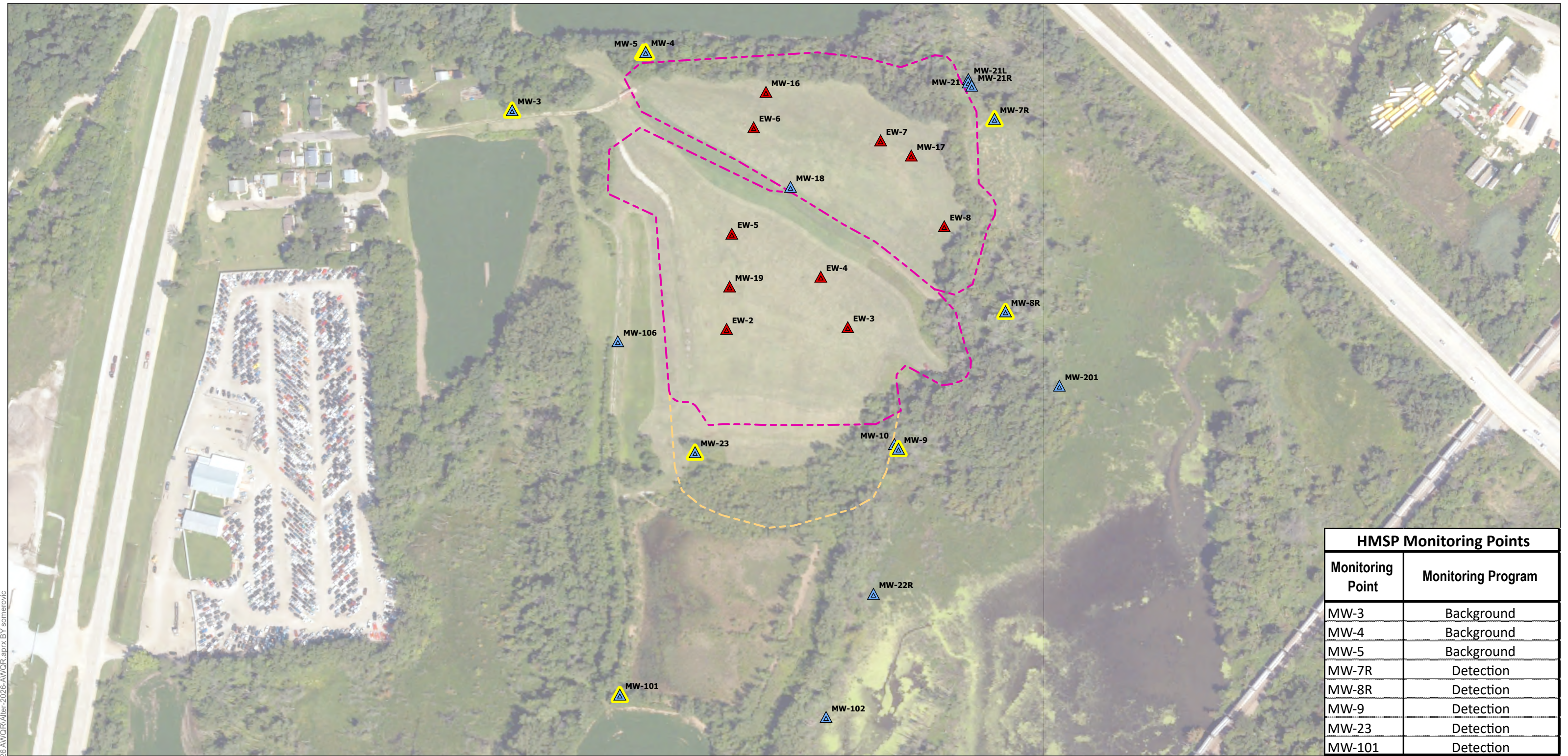
Notes:

Trending was evaluated using Mann-Kendall analysis at 80% confidence ($\alpha = 0.2$) based on the most recent eight detections.

Figures

- 1 Approved Monitoring Network
- 2 Aquifer (Alluvial) Groundwater Contours
- 3 Aquifer (Bedrock) Groundwater Contours

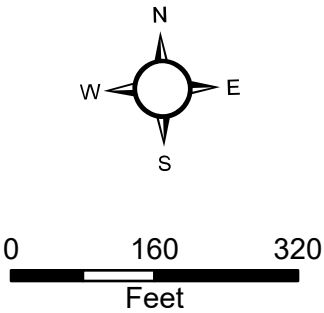
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HMSP Monitoring Points	
Monitoring Point	Monitoring Program
MW-3	Background
MW-4	Background
MW-5	Background
MW-7R	Detection
MW-8R	Detection
MW-9	Detection
MW-23	Detection
MW-101	Detection

Legend

-  HMSP Monitoring Point
-  Approximate Leachate Monitoring Location
-  Approximate Monitoring Well Location
-  Approximate Waste Boundary
-  Approximate Waste Excavation Boundary



1 inch = 214 feet

Approved Monitoring Network

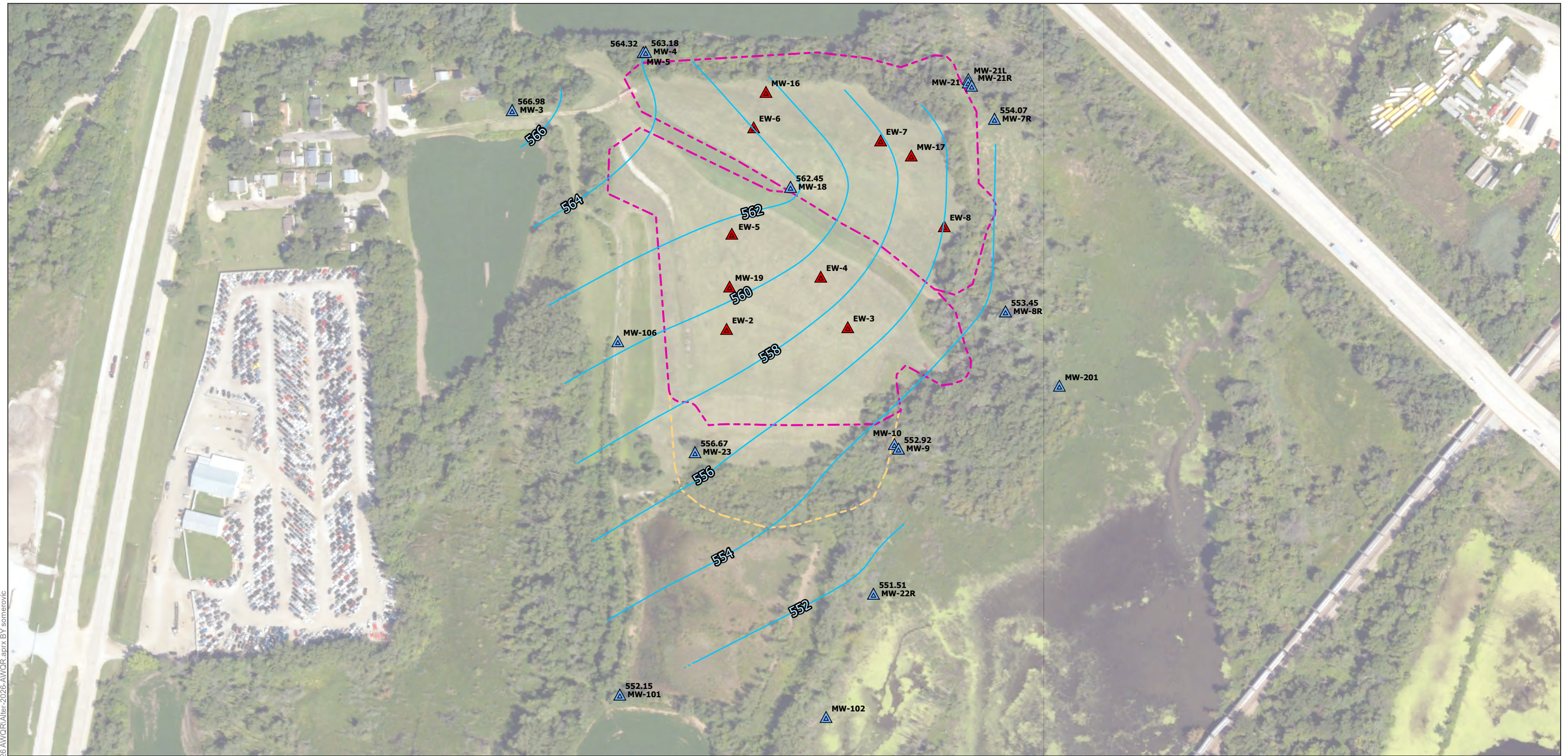
FIGURE 1
Alter Trading Corporation
Davenport, Iowa

27226134.00

July 2026

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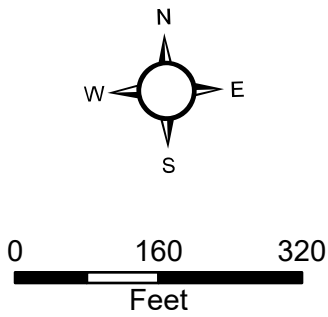


Legend

- Alluvial Aquifer Groundwater Contours Based on Measurments Taken May 6, 2026
- ▲

Approximate Monitoring Well Location
- ▲

Approximate Leachate Monitoring Location
- Approximate Waste Boundary
- Approximate Waste Excavation Boundary



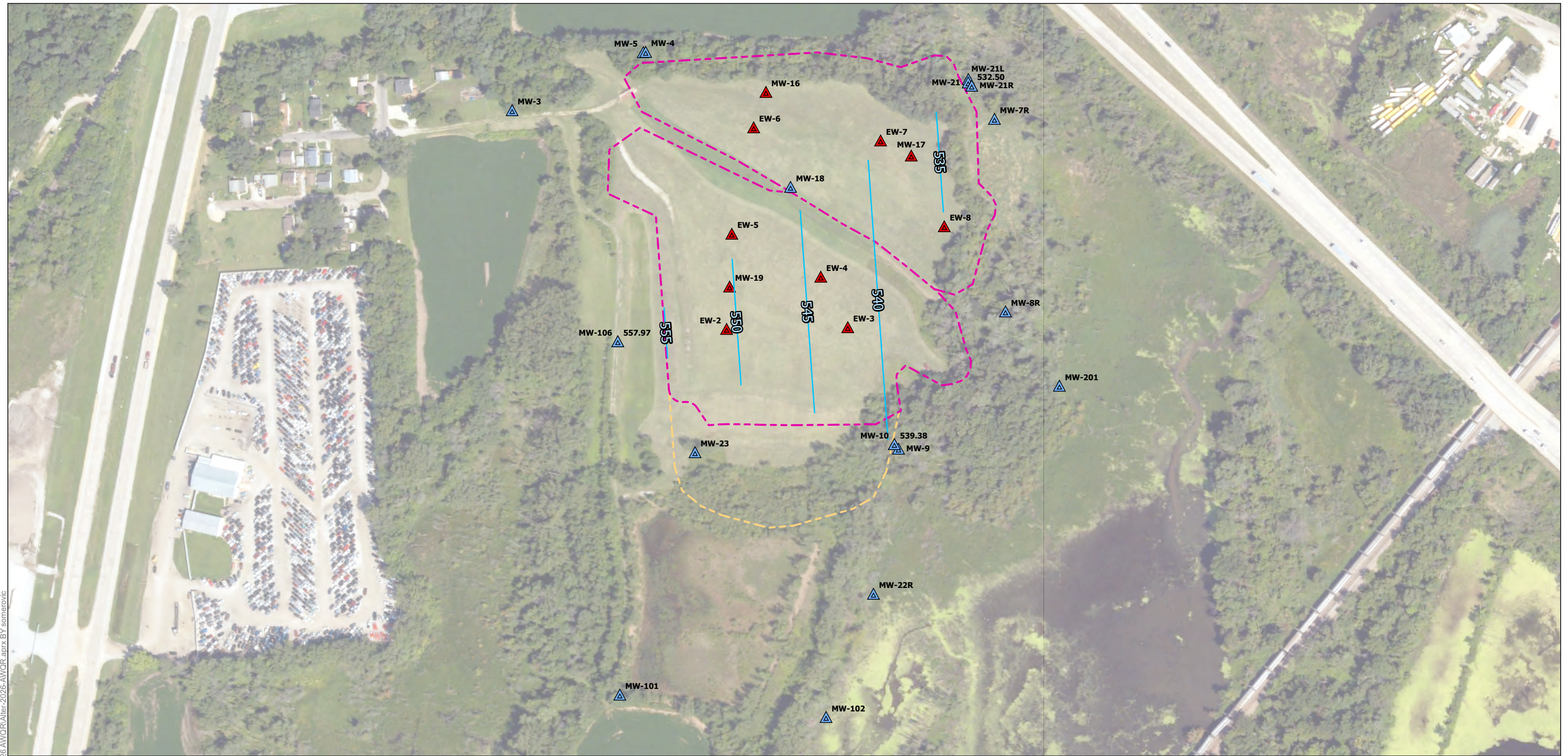
Aquifer (Alluvial) Groundwater Contours

FIGURE 2
Alter Trading Corporation
Davenport, Iowa

27226134.00 **July 2026**

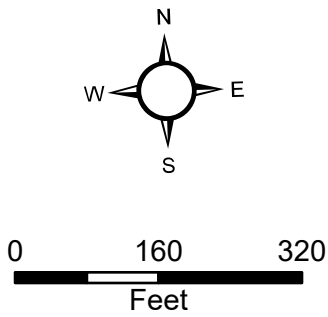
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Legend

- Bedrock Aquifer
Groundwater Contours
Based on
Measurements Taken
May 6, 2026
- Approximate
Monitoring Well
Location
- Approximate Leachate
Monitoring Location
- Approximate Waste
Boundary
- Approximate Waste
Excavation Boundary



Aquifer (Bedrock) Groundwater Contours

FIGURE 3
Alter Trading Corporation
Davenport, Iowa

27226134.00 **July 2026**

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Appendix A

Field Sampling Forms

FORM FOR GROUNDWATER SAMPLING

Project:	Alter Highway 22 Monofill		
Monitoring Well/Piezometer ID:	MW-3	Date:	5/6/2026
Gradient:	Up	Sampler:	Konner Roth

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):	20.3
Initial Static Water Level (feet):	6.32
Initial Groundwater Elevation (ft-amsl):	566.98
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
12:09 PM	Purging start time.						
12:12 PM	12.2	0.7	987.8	6.81	155.0	11.8	
12:15 PM	12.0	0.4	981.6	6.81	88.9	28.6	
12:18 PM	12.3	0.3	978.5	6.82	58.0	71.0	
12:21 PM	11.9	0.2	974.3	6.82	47.5	20.3	
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-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project:	Alter Highway 22 Monofill		
Monitoring Well/Piezometer ID:	MW-4	Date:	5/6/2026
Gradient:	Up	Sampler:	Konner Roth

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):	14.6
Initial Static Water Level (feet):	4.61
Initial Groundwater Elevation (ft-amsl):	563.18
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:03 PM	Purging start time.						
1:06 PM	11.0	0.7	993.7	7.05	-46.4	1368.6	
1:09 PM	11.0	0.4	995.0	7.04	-71.3	155.1	
1:12 PM	10.9	0.3	997.1	7.04	-77.1	92.9	
1:15 PM	10.8	0.2	996.4	7.04	-79.6	56.7	
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-Yellow Tint Odor-None

FORM FOR GROUNDWATER SAMPLING

Project: Alter Highway 22 Monofill	
Monitoring Well/Piezometer ID: MW-5	Date: 5/6/2026
Gradient: Up	Sampler: Konner Roth

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):	21.8
Initial Static Water Level (feet):	3.42
Initial Groundwater Elevation (ft-amsl):	564.32
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
12:36 PM	Purging start time.						
12:39 PM	12.2	5.8	763.1	7.40	134.7	9.2	
12:42 PM	11.1	5.4	743.3	7.40	140.4	14.3	
12:45 PM	11.0	5.1	740.6	7.38	145.3	12.6	
12:48 PM	10.9	4.8	741.8	7.36	149.2	26.3	
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:	Alter Highway 22 Monofill		
Monitoring Well/Piezometer ID:	MW-7R	Date:	5/6/2026
Gradient:	Down	Sampler:	Konner Roth

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):	12.1		
Initial Static Water Level (feet):	4.19		
Initial Groundwater Elevation (ft-amsl):	554.07		
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:35 PM	Purging start time.						
1:38 PM	11.8	0.8	1236.5	7.17	-10.4	4.8	
1:41 PM	12.3	0.4	1246.0	7.14	-6.1	5.7	
1:44 PM	12.2	0.2	1251.8	7.13	-3.9	7.1	
1:47 PM	11.8	0.2	1254.3	7.13	-5.5	9.4	
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- Started yellow then purged until clear Odor- Trash Duplicate

FORM FOR GROUNDWATER SAMPLING

Project:	Alter Highway 22 Monofill		
Monitoring Well/Piezometer ID:	MW-8R	Date:	5/6/2026
Gradient:	Down	Sampler:	Konner Roth

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):	12.1		
Initial Static Water Level (feet):	4.49		
Initial Groundwater Elevation (ft-amsl):	553.42		
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
2:17 PM	Purging start time.						
2:20 PM	10.8	0.5	1145.8	6.76	98.9	3.2	
2:23 PM	11.2	0.3	1140.7	6.75	92.2	3.6	
2:26 PM	11.7	0.2	1144.4	6.75	87.4	4.5	
2:29 PM	11.7	0.2	1144.8	6.75	83.2	4.9	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.2
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	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-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project: Alter Highway 22 Monofill	
Monitoring Well/Piezometer ID: MW-9	Date: 5/6/2026
Gradient: Down	Sampler: Konner Roth

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):	11.9
Initial Static Water Level (feet):	3.58
Initial Groundwater Elevation (ft-amsl):	552.92
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING							
FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
2:48 PM	Purging start time.						
2:51 PM	11.4	0.9	3810.3	6.88	-75.4	13.5	
2:54 PM	11.2	0.4	3938.6	6.89	-96.5	12.8	
2:57 PM	11.4	0.2	3993.8	6.90	-104.4	4.5	
3:00 PM	11.4	0.1	4039.9	6.90	-108.9	3.7	
Parameters stabilized, sample collected.							

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

D. WELL MAINTENANCE	
Does the well require any future maintenance? No	
If yes, explain:	
Additional Comments:	Color-Yellow Odor-Trash/leachate

FORM FOR GROUNDWATER SAMPLING

Project:	Alter Highway 22 Monofill		
Monitoring Well/Piezometer ID:	MW-23	Date:	5/6/2026
Gradient:	Down	Sampler:	Konner Roth

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):	28.7
Initial Static Water Level (feet):	15.81
Initial Groundwater Elevation (ft-amsl):	542.45
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
3:23 PM	Purging start time.						
3:26 PM	12.5	0.6	1181.6	6.48	-63.5	10.1	
3:29 PM	12.3	0.6	1135.3	6.46	-62.5	13.5	
3:32 PM	12.1	0.5	1121.0	6.46	-65.2	32.3	
3:35 PM	12.3	0.4	1113.3	6.45	-67.9	16.8	
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 with black particles Odor-Sulfur

Appendix B-1

Laboratory Analytical Data Sheets

ANALYTICAL REPORT

PREPARED FOR

Attn: Kevin Jensen
SCS Engineers
1690 All State Court
Suite 100

West Des Moines, Iowa 50265

Generated 6/19/2026 3:03:52 PM Revision 1

JOB DESCRIPTION

Alter H22 Landfill 2026 GW Sampling

JOB NUMBER

310-331589-1

Eurofins Cedar Falls

Job Notes

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

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

Authorization



Authorized for release by
Samuel Miller, Project Management Assistant I
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(319)595-2008

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Revision 1

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Case Narrative

Client: SCS Engineers
Project: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Job ID: 310-331589-1

Eurofins Cedar Falls

Job Narrative 310-331589-1

REVISION

The report being provided is a revision of the original report sent on 5/19/2026. The report (revision 1) is being revised due to Removed TEH analysis per client request.

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

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

Receipt

The samples were received on 5/7/2026 4:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.7°C and 0.9°C.

GC/MS VOA

Method 8260D: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: MW-9 (310-331589-6).

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

HPLC/IC

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

Metals

Method 6020B: The following sample was received with insufficient preservation: MW-9 (310-331589-6). The maximum amount of preservative was added by the laboratory, but the sample remained strongly basic. No further attempt was made to acidify the sample, as it would have diluted the sample. This does not meet regulatory requirements.

Method 6020B: Due to sample matrix, only 10mL was used.

MW-9 (310-331589-6)

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

General Chemistry

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

Eurofins Cedar Falls

Sample Summary

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-331589-1	MW-3	Water	05/06/26 12:33	05/07/26 16:40	Iowa
310-331589-2	MW-4	Water	05/06/26 13:28	05/07/26 16:40	Iowa
310-331589-3	MW-5	Water	05/06/26 13:01	05/07/26 16:40	Iowa
310-331589-4	MW-7R	Water	05/06/26 14:09	05/07/26 16:40	Iowa
310-331589-5	MW-8R	Water	05/06/26 14:40	05/07/26 16:40	Iowa
310-331589-6	MW-9	Water	05/06/26 15:13	05/07/26 16:40	Iowa
310-331589-7	MW-23	Water	05/06/26 15:48	05/07/26 16:40	Iowa
310-331589-8	MW-D	Water	05/06/26 14:09	05/07/26 16:40	Iowa
310-331589-9	Trip Blank	Water	05/06/26 00:00	05/07/26 16:40	Iowa

Detection Summary

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-3

Lab Sample ID: 310-331589-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	179		5.00	2.25	mg/L	5		9056A	Total/NA
Arsenic	0.00171	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Iron	0.919		0.100	0.0560	mg/L	1		6020B	Total/NA
Ammonia as N	0.555		0.500	0.160	mg/L	1		350.1	Total/NA
Total Suspended Solids	6.13		1.88	1.05	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 310-331589-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	191		5.00	2.25	mg/L	5		9056A	Total/NA
Arsenic	0.0245		0.00200	0.000530	mg/L	1		6020B	Total/NA
Iron	8.89		0.100	0.0560	mg/L	1		6020B	Total/NA
Ammonia as N	0.202	J	0.500	0.160	mg/L	1		350.1	Total/NA
Total Suspended Solids	15.3		5.00	2.80	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-5

Lab Sample ID: 310-331589-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	137		5.00	2.25	mg/L	5		9056A	Total/NA
Iron	0.636		0.100	0.0560	mg/L	1		6020B	Total/NA
Total Suspended Solids	6.63		1.88	1.05	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-7R

Lab Sample ID: 310-331589-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25.7		5.00	2.25	mg/L	5		9056A	Total/NA
Iron	0.625		0.100	0.0560	mg/L	1		6020B	Total/NA
Total Suspended Solids	2.25		1.88	1.05	mg/L	1		I-3765-85	Total/NA
Chemical Oxygen Demand	60.1		25.0	22.0	mg/L	5		SM 5220D	Total/NA

Client Sample ID: MW-8R

Lab Sample ID: 310-331589-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	196		5.00	2.25	mg/L	5		9056A	Total/NA
Iron	0.317		0.100	0.0560	mg/L	1		6020B	Total/NA
Total Suspended Solids	2.00		1.88	1.05	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-9

Lab Sample ID: 310-331589-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.92		0.500	0.220	ug/L	1		8260D	Total/NA
Chloride	723		20.0	9.00	mg/L	20		9056A	Total/NA
Arsenic	0.121		0.0100	0.00265	mg/L	1		6020B	Total/NA
Iron	27.7		0.500	0.280	mg/L	1		6020B	Total/NA
Ammonia as N	2.44		0.500	0.160	mg/L	1		350.1	Total/NA
Total Suspended Solids	40.0		15.0	8.40	mg/L	1		I-3765-85	Total/NA
Chemical Oxygen Demand	877		250	220	mg/L	50		SM 5220D	Total/NA

Client Sample ID: MW-23

Lab Sample ID: 310-331589-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	42.8		5.00	2.25	mg/L	5		9056A	Total/NA
Iron	30.4		0.100	0.0560	mg/L	1		6020B	Total/NA
Ammonia as N	2.59		0.500	0.160	mg/L	1		350.1	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-23 (Continued)

Lab Sample ID: 310-331589-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	52.0		15.0	8.40	mg/L	1		I-3765-85	Total/NA
Chemical Oxygen Demand	50.3		25.0	22.0	mg/L	5		SM 5220D	Total/NA

Client Sample ID: MW-D

Lab Sample ID: 310-331589-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25.7		5.00	2.25	mg/L	5		9056A	Total/NA
Iron	1.10		0.100	0.0560	mg/L	1		6020B	Total/NA
Total Suspended Solids	2.50		1.88	1.05	mg/L	1		I-3765-85	Total/NA
Chemical Oxygen Demand	73.1		25.0	22.0	mg/L	5		SM 5220D	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 310-331589-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-3

Lab Sample ID: 310-331589-1

Date Collected: 05/06/26 12:33

Matrix: Water

Date Received: 05/07/26 16:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500	0.220	ug/L			05/09/26 12:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		76 - 130					05/09/26 12:42	1
Toluene-d8 (Surr)	94		80 - 120					05/09/26 12:42	1
4-Bromofluorobenzene (Surr)	105		80 - 120					05/09/26 12:42	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	179		5.00	2.25	mg/L			05/13/26 12:01	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00171	J	0.00200	0.000530	mg/L		05/11/26 09:00	05/13/26 16:20	1
Iron	0.919		0.100	0.0560	mg/L		05/11/26 09:00	05/13/26 16:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	0.555		0.500	0.160	mg/L			05/14/26 13:48	1
Total Suspended Solids (USGS I-3765-85)	6.13		1.88	1.05	mg/L			05/08/26 11:11	1
Chemical Oxygen Demand (SM 5220D)	<25.0		25.0	22.0	mg/L			05/12/26 12:24	5

Client Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-4

Lab Sample ID: 310-331589-2

Date Collected: 05/06/26 13:28

Matrix: Water

Date Received: 05/07/26 16:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500	0.220	ug/L			05/09/26 13:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		76 - 130					05/09/26 13:04	1
Toluene-d8 (Surr)	93		80 - 120					05/09/26 13:04	1
4-Bromofluorobenzene (Surr)	103		80 - 120					05/09/26 13:04	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	191		5.00	2.25	mg/L			05/14/26 11:33	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0245		0.00200	0.000530	mg/L		05/11/26 09:00	05/13/26 16:22	1
Iron	8.89		0.100	0.0560	mg/L		05/11/26 09:00	05/13/26 16:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	0.202	J	0.500	0.160	mg/L			05/14/26 13:51	1
Total Suspended Solids (USGS I-3765-85)	15.3		5.00	2.80	mg/L			05/08/26 11:11	1
Chemical Oxygen Demand (SM 5220D)	<25.0		25.0	22.0	mg/L			05/12/26 12:24	5

Client Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-5

Lab Sample ID: 310-331589-3

Date Collected: 05/06/26 13:01

Matrix: Water

Date Received: 05/07/26 16:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500	0.220	ug/L			05/13/26 04:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		76 - 130					05/13/26 04:24	1
Toluene-d8 (Surr)	97		80 - 120					05/13/26 04:24	1
4-Bromofluorobenzene (Surr)	99		80 - 120					05/13/26 04:24	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	137		5.00	2.25	mg/L			05/14/26 12:38	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		05/11/26 09:00	05/13/26 16:25	1
Iron	0.636		0.100	0.0560	mg/L		05/11/26 09:00	05/13/26 16:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500	0.160	mg/L			05/14/26 14:06	1
Total Suspended Solids (USGS I-3765-85)	6.63		1.88	1.05	mg/L			05/08/26 11:11	1
Chemical Oxygen Demand (SM 5220D)	<25.0		25.0	22.0	mg/L			05/12/26 12:24	5

Client Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-7R

Lab Sample ID: 310-331589-4

Date Collected: 05/06/26 14:09

Matrix: Water

Date Received: 05/07/26 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.7		5.00	2.25	mg/L			05/14/26 12:51	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.625		0.100	0.0560	mg/L		05/11/26 09:00	05/13/26 16:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500	0.160	mg/L			05/14/26 14:09	1
Total Suspended Solids (USGS I-3765-85)	2.25		1.88	1.05	mg/L			05/08/26 11:11	1
Chemical Oxygen Demand (SM 5220D)	60.1		25.0	22.0	mg/L			05/12/26 12:24	5

Client Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-8R

Date Collected: 05/06/26 14:40

Date Received: 05/07/26 16:40

Lab Sample ID: 310-331589-5

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	196		5.00	2.25	mg/L			05/14/26 13:04	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.317		0.100	0.0560	mg/L		05/11/26 09:00	05/13/26 16:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500	0.160	mg/L			05/14/26 14:12	1
Total Suspended Solids (USGS I-3765-85)	2.00		1.88	1.05	mg/L			05/08/26 11:11	1
Chemical Oxygen Demand (SM 5220D)	<25.0		25.0	22.0	mg/L			05/12/26 12:24	5

Client Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-9

Lab Sample ID: 310-331589-6

Date Collected: 05/06/26 15:13

Matrix: Water

Date Received: 05/07/26 16:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.92		0.500	0.220	ug/L			05/15/26 16:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	105		76 - 130					05/15/26 16:47	1
Toluene-d8 (Surr)	96		80 - 120					05/15/26 16:47	1
4-Bromofluorobenzene (Surr)	99		80 - 120					05/15/26 16:47	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	723		20.0	9.00	mg/L			05/14/26 13:17	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.121		0.0100	0.00265	mg/L		05/11/26 09:00	05/13/26 16:32	1
Iron	27.7		0.500	0.280	mg/L		05/11/26 09:00	05/13/26 16:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	2.44		0.500	0.160	mg/L			05/14/26 14:15	1
Total Suspended Solids (USGS I-3765-85)	40.0		15.0	8.40	mg/L			05/08/26 08:46	1
Chemical Oxygen Demand (SM 5220D)	877		250	220	mg/L			05/12/26 12:24	50

Client Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-23

Date Collected: 05/06/26 15:48

Date Received: 05/07/26 16:40

Lab Sample ID: 310-331589-7

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.8		5.00	2.25	mg/L			05/14/26 13:30	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	30.4		0.100	0.0560	mg/L		05/11/26 09:00	05/13/26 16:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	2.59		0.500	0.160	mg/L			05/14/26 14:18	1
Total Suspended Solids (USGS I-3765-85)	52.0		15.0	8.40	mg/L			05/08/26 08:46	1
Chemical Oxygen Demand (SM 5220D)	50.3		25.0	22.0	mg/L			05/12/26 12:24	5

Client Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-D

Lab Sample ID: 310-331589-8

Date Collected: 05/06/26 14:09

Matrix: Water

Date Received: 05/07/26 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.7		5.00	2.25	mg/L			05/14/26 13:43	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.10		0.100	0.0560	mg/L		05/11/26 09:00	05/13/26 16:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500	0.160	mg/L			05/14/26 14:21	1
Total Suspended Solids (USGS I-3765-85)	2.50		1.88	1.05	mg/L			05/08/26 08:46	1
Chemical Oxygen Demand (SM 5220D)	73.1		25.0	22.0	mg/L			05/12/26 12:24	5

Client Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: Trip Blank

Lab Sample ID: 310-331589-9

Date Collected: 05/06/26 00:00

Matrix: Water

Date Received: 05/07/26 16:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500	0.220	ug/L			05/13/26 01:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		76 - 130					05/13/26 01:20	1
Toluene-d8 (Surr)	98		80 - 120					05/13/26 01:20	1
4-Bromofluorobenzene (Surr)	104		80 - 120					05/13/26 01:20	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Qualifiers

HPLC/IC

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

Metals

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit
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

Surrogate Summary

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	DBFM (76-130)	TOL (80-120)	BFB (80-120)
310-331589-1	MW-3	107	94	105
310-331589-2	MW-4	109	93	103
310-331589-3	MW-5	107	97	99
310-331589-6	MW-9	105	96	99
310-331589-9	Trip Blank	108	98	104
LCS 310-488391/6	Lab Control Sample	96	99	100
LCS 310-488697/6	Lab Control Sample	99	100	96
LCS 310-489005/6	Lab Control Sample	97	99	92
MB 310-488391/5	Method Blank	106	95	101
MB 310-488697/5	Method Blank	107	97	103
MB 310-489005/5	Method Blank	112	94	100

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

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

Lab Sample ID: MB 310-488391/5

Matrix: Water

Analysis Batch: 488391

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500	0.220	ug/L			05/09/26 09:41	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	106		76 - 130					05/09/26 09:41	1
Toluene-d8 (Surr)	95		80 - 120					05/09/26 09:41	1
4-Bromofluorobenzene (Surr)	101		80 - 120					05/09/26 09:41	1

Lab Sample ID: LCS 310-488391/6

Matrix: Water

Analysis Batch: 488391

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.0	19.78		ug/L		99	71 - 125
Surrogate	%Recovery	LCS Qualifier	Limits				
Dibromofluoromethane (Surr)	96		76 - 130				
Toluene-d8 (Surr)	99		80 - 120				
4-Bromofluorobenzene (Surr)	100		80 - 120				

Lab Sample ID: MB 310-488697/5

Matrix: Water

Analysis Batch: 488697

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500	0.220	ug/L			05/12/26 23:03	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		76 - 130					05/12/26 23:03	1
Toluene-d8 (Surr)	97		80 - 120					05/12/26 23:03	1
4-Bromofluorobenzene (Surr)	103		80 - 120					05/12/26 23:03	1

Lab Sample ID: LCS 310-488697/6

Matrix: Water

Analysis Batch: 488697

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.0	19.69		ug/L		98	71 - 125
Surrogate	%Recovery	LCS Qualifier	Limits				
Dibromofluoromethane (Surr)	99		76 - 130				
Toluene-d8 (Surr)	100		80 - 120				
4-Bromofluorobenzene (Surr)	96		80 - 120				

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QC Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

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

Lab Sample ID: MB 310-489005/5

Matrix: Water

Analysis Batch: 489005

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500	0.220	ug/L			05/15/26 08:00	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	112		76 - 130					05/15/26 08:00	1
Toluene-d8 (Surr)	94		80 - 120					05/15/26 08:00	1
4-Bromofluorobenzene (Surr)	100		80 - 120					05/15/26 08:00	1

Lab Sample ID: LCS 310-489005/6

Matrix: Water

Analysis Batch: 489005

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.0	21.87		ug/L		109	71 - 125
Surrogate	%Recovery	LCS Qualifier	Limits				
Dibromofluoromethane (Surr)	97		76 - 130				
Toluene-d8 (Surr)	99		80 - 120				
4-Bromofluorobenzene (Surr)	92		80 - 120				

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-489013/3

Matrix: Water

Analysis Batch: 489013

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			05/13/26 08:55	1

Lab Sample ID: LCS 310-489013/4

Matrix: Water

Analysis Batch: 489013

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	10.25		mg/L		102	90 - 110

Lab Sample ID: MB 310-489115/3

Matrix: Water

Analysis Batch: 489115

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			05/14/26 10:39	1

Lab Sample ID: LCS 310-489115/4

Matrix: Water

Analysis Batch: 489115

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	10.10		mg/L		101	90 - 110

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QC Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 310-331589-2 MS

Matrix: Water

Analysis Batch: 489115

Client Sample ID: MW-4

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	191		25.0	207.3	4	mg/L		67	80 - 120

Lab Sample ID: 310-331589-2 MSD

Matrix: Water

Analysis Batch: 489115

Client Sample ID: MW-4

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	191		25.0	207.7	4	mg/L		68	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-488395/1-A

Matrix: Water

Analysis Batch: 488925

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 488395

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		05/11/26 09:00	05/13/26 15:54	1
Iron	<0.100		0.100	0.0560	mg/L		05/11/26 09:00	05/13/26 15:54	1

Lab Sample ID: LCS 310-488395/2-A

Matrix: Water

Analysis Batch: 488925

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 488395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.1990		mg/L		99	80 - 120
Iron	0.200	0.2158		mg/L		108	80 - 120

Lab Sample ID: 310-331589-8 DU

Matrix: Water

Analysis Batch: 488925

Client Sample ID: MW-D

Prep Type: Total/NA

Prep Batch: 488395

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.00121	J	0.001100	J	mg/L		9	20
Iron	1.10		0.5439	F3	mg/L		68	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-489071/48

Matrix: Water

Analysis Batch: 489071

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500	0.160	mg/L			05/14/26 13:00	1

Lab Sample ID: MB 310-489071/84

Matrix: Water

Analysis Batch: 489071

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500	0.160	mg/L			05/14/26 14:48	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 310-489071/116
Matrix: Water
Analysis Batch: 489071

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	2.26	2.241		mg/L		99	90 - 110

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

Lab Sample ID: MB 310-488328/1
Matrix: Water
Analysis Batch: 488328

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	2.80	mg/L			05/08/26 08:46	1

Lab Sample ID: LCS 310-488328/2
Matrix: Water
Analysis Batch: 488328

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	99.00		mg/L		99	82 - 117

Lab Sample ID: MB 310-488367/1
Matrix: Water
Analysis Batch: 488367

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	2.80	mg/L			05/08/26 11:11	1

Lab Sample ID: LCS 310-488367/2
Matrix: Water
Analysis Batch: 488367

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	82 - 117

Method: SM 5220D - COD

Lab Sample ID: MB 310-488706/32
Matrix: Water
Analysis Batch: 488706

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	4.40	mg/L			05/12/26 12:24	1

Lab Sample ID: MB 310-488706/60
Matrix: Water
Analysis Batch: 488706

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	4.40	mg/L			05/12/26 12:24	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Method: SM 5220D - COD (Continued)

Lab Sample ID: LCS 310-488706/33

Matrix: Water

Analysis Batch: 488706

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	62.7	59.17		mg/L		94	85 - 115

Lab Sample ID: LCS 310-488706/63

Matrix: Water

Analysis Batch: 488706

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	62.7	59.82		mg/L		95	85 - 115

Lab Sample ID: 310-331589-7 MS

Matrix: Water

Analysis Batch: 488706

Client Sample ID: MW-23

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	50.3		250	336.5		mg/L		115	84 - 141

Lab Sample ID: 310-331589-7 MSD

Matrix: Water

Analysis Batch: 488706

Client Sample ID: MW-23

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	50.3		250	336.5		mg/L		115	84 - 141	0	14

QC Association Summary

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

GC/MS VOA

Analysis Batch: 488391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-331589-1	MW-3	Total/NA	Water	8260D	
310-331589-2	MW-4	Total/NA	Water	8260D	
MB 310-488391/5	Method Blank	Total/NA	Water	8260D	
LCS 310-488391/6	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 488697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-331589-3	MW-5	Total/NA	Water	8260D	
310-331589-9	Trip Blank	Total/NA	Water	8260D	
MB 310-488697/5	Method Blank	Total/NA	Water	8260D	
LCS 310-488697/6	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 489005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-331589-6	MW-9	Total/NA	Water	8260D	
MB 310-489005/5	Method Blank	Total/NA	Water	8260D	
LCS 310-489005/6	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 489013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-331589-1	MW-3	Total/NA	Water	9056A	
MB 310-489013/3	Method Blank	Total/NA	Water	9056A	
LCS 310-489013/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 489115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-331589-2	MW-4	Total/NA	Water	9056A	
310-331589-3	MW-5	Total/NA	Water	9056A	
310-331589-4	MW-7R	Total/NA	Water	9056A	
310-331589-5	MW-8R	Total/NA	Water	9056A	
310-331589-6	MW-9	Total/NA	Water	9056A	
310-331589-7	MW-23	Total/NA	Water	9056A	
310-331589-8	MW-D	Total/NA	Water	9056A	
MB 310-489115/3	Method Blank	Total/NA	Water	9056A	
LCS 310-489115/4	Lab Control Sample	Total/NA	Water	9056A	
310-331589-2 MS	MW-4	Total/NA	Water	9056A	
310-331589-2 MSD	MW-4	Total/NA	Water	9056A	

Metals

Prep Batch: 488395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-331589-1	MW-3	Total/NA	Water	3005A	
310-331589-2	MW-4	Total/NA	Water	3005A	
310-331589-3	MW-5	Total/NA	Water	3005A	
310-331589-4	MW-7R	Total/NA	Water	3005A	
310-331589-5	MW-8R	Total/NA	Water	3005A	
310-331589-6	MW-9	Total/NA	Water	3005A	
310-331589-7	MW-23	Total/NA	Water	3005A	
310-331589-8	MW-D	Total/NA	Water	3005A	

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QC Association Summary

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Metals (Continued)

Prep Batch: 488395 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-488395/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-488395/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-331589-8 DU	MW-D	Total/NA	Water	3005A	

Analysis Batch: 488925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-331589-1	MW-3	Total/NA	Water	6020B	488395
310-331589-2	MW-4	Total/NA	Water	6020B	488395
310-331589-3	MW-5	Total/NA	Water	6020B	488395
310-331589-4	MW-7R	Total/NA	Water	6020B	488395
310-331589-5	MW-8R	Total/NA	Water	6020B	488395
310-331589-6	MW-9	Total/NA	Water	6020B	488395
310-331589-7	MW-23	Total/NA	Water	6020B	488395
310-331589-8	MW-D	Total/NA	Water	6020B	488395
MB 310-488395/1-A	Method Blank	Total/NA	Water	6020B	488395
LCS 310-488395/2-A	Lab Control Sample	Total/NA	Water	6020B	488395
310-331589-8 DU	MW-D	Total/NA	Water	6020B	488395

General Chemistry

Analysis Batch: 488328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-331589-6	MW-9	Total/NA	Water	I-3765-85	
310-331589-7	MW-23	Total/NA	Water	I-3765-85	
310-331589-8	MW-D	Total/NA	Water	I-3765-85	
MB 310-488328/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-488328/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 488367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-331589-1	MW-3	Total/NA	Water	I-3765-85	
310-331589-2	MW-4	Total/NA	Water	I-3765-85	
310-331589-3	MW-5	Total/NA	Water	I-3765-85	
310-331589-4	MW-7R	Total/NA	Water	I-3765-85	
310-331589-5	MW-8R	Total/NA	Water	I-3765-85	
MB 310-488367/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-488367/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 488706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-331589-1	MW-3	Total/NA	Water	SM 5220D	
310-331589-2	MW-4	Total/NA	Water	SM 5220D	
310-331589-3	MW-5	Total/NA	Water	SM 5220D	
310-331589-4	MW-7R	Total/NA	Water	SM 5220D	
310-331589-5	MW-8R	Total/NA	Water	SM 5220D	
310-331589-6	MW-9	Total/NA	Water	SM 5220D	
310-331589-7	MW-23	Total/NA	Water	SM 5220D	
310-331589-8	MW-D	Total/NA	Water	SM 5220D	
MB 310-488706/32	Method Blank	Total/NA	Water	SM 5220D	
MB 310-488706/60	Method Blank	Total/NA	Water	SM 5220D	
LCS 310-488706/33	Lab Control Sample	Total/NA	Water	SM 5220D	

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QC Association Summary

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

General Chemistry (Continued)

Analysis Batch: 488706 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-488706/63	Lab Control Sample	Total/NA	Water	SM 5220D	
310-331589-7 MS	MW-23	Total/NA	Water	SM 5220D	
310-331589-7 MSD	MW-23	Total/NA	Water	SM 5220D	

Analysis Batch: 489071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-331589-1	MW-3	Total/NA	Water	350.1	
310-331589-2	MW-4	Total/NA	Water	350.1	
310-331589-3	MW-5	Total/NA	Water	350.1	
310-331589-4	MW-7R	Total/NA	Water	350.1	
310-331589-5	MW-8R	Total/NA	Water	350.1	
310-331589-6	MW-9	Total/NA	Water	350.1	
310-331589-7	MW-23	Total/NA	Water	350.1	
310-331589-8	MW-D	Total/NA	Water	350.1	
MB 310-489071/48	Method Blank	Total/NA	Water	350.1	
MB 310-489071/84	Method Blank	Total/NA	Water	350.1	
LCS 310-489071/116	Lab Control Sample	Total/NA	Water	350.1	

Lab Chronicle

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-3

Date Collected: 05/06/26 12:33

Date Received: 05/07/26 16:40

Lab Sample ID: 310-331589-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	488391	WSE8	EET CF	05/09/26 12:42
Total/NA	Analysis	9056A		5	489013	HE7K	EET CF	05/13/26 12:01
Total/NA	Prep	3005A			488395	F8JX	EET CF	05/11/26 09:00
Total/NA	Analysis	6020B		1	488925	NFT2	EET CF	05/13/26 16:20
Total/NA	Analysis	350.1		1	489071	WZC8	EET CF	05/14/26 13:48
Total/NA	Analysis	I-3765-85		1	488367	HE7K	EET CF	05/08/26 11:11
Total/NA	Analysis	SM 5220D		5	488706	ENB7	EET CF	05/12/26 12:24

Client Sample ID: MW-4

Date Collected: 05/06/26 13:28

Date Received: 05/07/26 16:40

Lab Sample ID: 310-331589-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	488391	WSE8	EET CF	05/09/26 13:04
Total/NA	Analysis	9056A		5	489115	HE7K	EET CF	05/14/26 11:33
Total/NA	Prep	3005A			488395	F8JX	EET CF	05/11/26 09:00
Total/NA	Analysis	6020B		1	488925	NFT2	EET CF	05/13/26 16:22
Total/NA	Analysis	350.1		1	489071	WZC8	EET CF	05/14/26 13:51
Total/NA	Analysis	I-3765-85		1	488367	HE7K	EET CF	05/08/26 11:11
Total/NA	Analysis	SM 5220D		5	488706	ENB7	EET CF	05/12/26 12:24

Client Sample ID: MW-5

Date Collected: 05/06/26 13:01

Date Received: 05/07/26 16:40

Lab Sample ID: 310-331589-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	488697	FE5V	EET CF	05/13/26 04:24
Total/NA	Analysis	9056A		5	489115	HE7K	EET CF	05/14/26 12:38
Total/NA	Prep	3005A			488395	F8JX	EET CF	05/11/26 09:00
Total/NA	Analysis	6020B		1	488925	NFT2	EET CF	05/13/26 16:25
Total/NA	Analysis	350.1		1	489071	WZC8	EET CF	05/14/26 14:06
Total/NA	Analysis	I-3765-85		1	488367	HE7K	EET CF	05/08/26 11:11
Total/NA	Analysis	SM 5220D		5	488706	ENB7	EET CF	05/12/26 12:24

Client Sample ID: MW-7R

Date Collected: 05/06/26 14:09

Date Received: 05/07/26 16:40

Lab Sample ID: 310-331589-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	489115	HE7K	EET CF	05/14/26 12:51
Total/NA	Prep	3005A			488395	F8JX	EET CF	05/11/26 09:00
Total/NA	Analysis	6020B		1	488925	NFT2	EET CF	05/13/26 16:27
Total/NA	Analysis	350.1		1	489071	WZC8	EET CF	05/14/26 14:09

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-7R

Date Collected: 05/06/26 14:09

Date Received: 05/07/26 16:40

Lab Sample ID: 310-331589-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	I-3765-85		1	488367	HE7K	EET CF	05/08/26 11:11
Total/NA	Analysis	SM 5220D		5	488706	ENB7	EET CF	05/12/26 12:24

Client Sample ID: MW-8R

Date Collected: 05/06/26 14:40

Date Received: 05/07/26 16:40

Lab Sample ID: 310-331589-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	489115	HE7K	EET CF	05/14/26 13:04
Total/NA	Prep	3005A			488395	F8JX	EET CF	05/11/26 09:00
Total/NA	Analysis	6020B		1	488925	NFT2	EET CF	05/13/26 16:30
Total/NA	Analysis	350.1		1	489071	WZC8	EET CF	05/14/26 14:12
Total/NA	Analysis	I-3765-85		1	488367	HE7K	EET CF	05/08/26 11:11
Total/NA	Analysis	SM 5220D		5	488706	ENB7	EET CF	05/12/26 12:24

Client Sample ID: MW-9

Date Collected: 05/06/26 15:13

Date Received: 05/07/26 16:40

Lab Sample ID: 310-331589-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	489005	FE5V	EET CF	05/15/26 16:47
Total/NA	Analysis	9056A		20	489115	HE7K	EET CF	05/14/26 13:17
Total/NA	Prep	3005A			488395	F8JX	EET CF	05/11/26 09:00
Total/NA	Analysis	6020B		1	488925	NFT2	EET CF	05/13/26 16:32
Total/NA	Analysis	350.1		1	489071	WZC8	EET CF	05/14/26 14:15
Total/NA	Analysis	I-3765-85		1	488328	HE7K	EET CF	05/08/26 08:46
Total/NA	Analysis	SM 5220D		50	488706	ENB7	EET CF	05/12/26 12:24

Client Sample ID: MW-23

Date Collected: 05/06/26 15:48

Date Received: 05/07/26 16:40

Lab Sample ID: 310-331589-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	489115	HE7K	EET CF	05/14/26 13:30
Total/NA	Prep	3005A			488395	F8JX	EET CF	05/11/26 09:00
Total/NA	Analysis	6020B		1	488925	NFT2	EET CF	05/13/26 16:35
Total/NA	Analysis	350.1		1	489071	WZC8	EET CF	05/14/26 14:18
Total/NA	Analysis	I-3765-85		1	488328	HE7K	EET CF	05/08/26 08:46
Total/NA	Analysis	SM 5220D		5	488706	ENB7	EET CF	05/12/26 12:24

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Client Sample ID: MW-D

Date Collected: 05/06/26 14:09

Date Received: 05/07/26 16:40

Lab Sample ID: 310-331589-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	489115	HE7K	EET CF	05/14/26 13:43
Total/NA	Prep	3005A			488395	F8JX	EET CF	05/11/26 09:00
Total/NA	Analysis	6020B		1	488925	NFT2	EET CF	05/13/26 16:43
Total/NA	Analysis	350.1		1	489071	WZC8	EET CF	05/14/26 14:21
Total/NA	Analysis	I-3765-85		1	488328	HE7K	EET CF	05/08/26 08:46
Total/NA	Analysis	SM 5220D		5	488706	ENB7	EET CF	05/12/26 12:24

Client Sample ID: Trip Blank

Date Collected: 05/06/26 00:00

Date Received: 05/07/26 16:40

Lab Sample ID: 310-331589-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	488697	FE5V	EET CF	05/13/26 01:20

Laboratory References:

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

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-27

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

Method Summary

Client: SCS Engineers
Project/Site: Alter H22 Landfill 2026 GW Sampling

Job ID: 310-331589-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 5220D	COD	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF

Protocol References:

EPA = US Environmental Protection Agency

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



Environment Testing
America



310-331589 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>96</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>5.7.26</u>	TIME <u>1640</u>	Received By: <u>PH</u>
Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?		☒ Yes ☐ No	If yes Cooler ID
Multiple Coolers?		☒ Yes ☐ No	If yes: Cooler # <u>1</u> of <u>2</u>
Cooler Custody Seals Present?		☐ Yes ☒ No	If yes. Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?		☐ Yes ☒ No	If yes: Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?		☐ Yes ☒ No	If yes: Which VOA samples are in cooler? ↓
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>CC</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.7</u>		Corrected Temp (°C): <u>0.7</u>	
• Sample Container Temperature			
Container(s) used	CONTAINER 1		CONTAINER 2
Uncorrected Temp (°C)			
Corrected Temp (°C)			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ 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			



Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>96</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received	DATE <u>5.7.26</u>	TIME <u>1640</u>	Received By: <u>PH</u>
Delivery Type ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? ☒ Yes ☐ No If yes: Cooler ID. _____			
Multiple Coolers? ☒ Yes ☐ No If yes: Cooler # <u>2</u> of <u>2</u>			
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? <u>All</u>			
Temperature Record			
Coolant. ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>CC</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.9</u>		Corrected Temp (°C): <u>0.9</u>	
• Sample Container Temperature			
Container(s) used.	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C)			
Corrected Temp (°C)			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ 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			

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-331589-1

Login Number: 331589

List Number: 1

Creator: Hirsch, Preston

List Source: Eurofins Cedar Falls

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



Appendix B-2

Data Validation

Completed by: Semir Omerovic
 Lab Report Date: 5/6/2026
 Site Name: Alter Highway 22 Monofil
 Lab Report Number: 310-306686-1

OK NO N/A NOTES

Sample Collection and Sample Handling

Chain of Custody

Temperature

Preservation

Condition

Reporting Limits

Case Narrative

Holding Times

Analytical Sensitivity and Blanks

Method Blank Detections

Trip Blank Detections

Accuracy

ICV/CCV

LCS/LCSD

MS/MSD

Surrogates (organics only)

Precision

QA/QC Sample RPDs

Field Duplicates

X			
X			
	X		Method 8260D: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: MW-9 (310-331589-6). Method 6020B: The following sample was received with insufficient preservation: MW-9 (310-331589-6). The maximum amount of preservative was added by the laboratory, but the sample remained strongly basic. No further attempt was made to acidify the sample, as it would have diluted the sample. This does not meet regulatory requirements.
X			
X			
	X		Method 6020B: Due to sample matrix, only 10mL was used. MW-9 (310-331589-6)
X			
X			
X			No Detections
X			
X			
X			
X			
X			
X			
X			
	X		The duplicate was collected from MW-7R during the 2026 event. All parameters had <50% relative difference, with the exception of iron. Constituents with J flag concentrations were not considered for duplicate sample comparisons.



Appendix C

Summary of Groundwater Chemistry

SCS ENGINEERS

Summary of Groundwater Chemistry

Alter Highway 22 Monofill (82-SDP-04-89C)

	Sample Date	MW-3 UPG	MW-4 UPG	MW-5 UPG	MW-7R DNG	MW-8R DNG	MW-9 DNG	MW-23 DNG
Total Metals Constituents								
	Antimony, mg/L (CAS NO - 7440-36-0)							
Arsenic, mg/L (CAS NO - 7440-38-2)	6/8/2023	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00167*	< 0.002
	6/8/2023	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	6/13/2024	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	3/28/2017	0.00308	0.0656	0.00205	N/A	N/A	0.0644	N/A
	8/24/2017	0.00139*	0.0588	< 0.002	N/A	N/A	0.0754	N/A
	5/2/2018	0.000926*	0.0418	0.000795*	N/A	N/A	0.149	N/A
	8/21/2018	0.00105*	0.00802	< 0.002	N/A	N/A	0.0692	N/A
	9/11/2019	0.00289	0.0138	< 0.002	N/A	N/A	0.0831	N/A
	3/4/2020	< 0.002	0.0345	< 0.002	N/A	N/A	0.0551	N/A
	6/2/2021	< 0.002	0.0742	< 0.002	N/A	N/A	0.0711	N/A
	7/13/2022	0.00241	0.206	< 0.002	N/A	N/A	N/A	N/A
	8/18/2022	N/A	N/A	N/A	N/A	N/A	0.0934	N/A
	6/8/2023	0.000675*	0.0188	< 0.002	0.000889*	0.000794*	0.0824	0.0336
	6/8/2023	N/A	0.00935	N/A	N/A	N/A	N/A	N/A
	6/13/2024	0.00443	0.0121	< 0.002	0.000918*	0.000642*	0.0975	0.0209
	6/13/2024	N/A	0.0196	N/A	N/A	N/A	N/A	N/A
Barium, mg/L (CAS NO - 7440-39-3)	5/14/2025	0.000997*	0.0762	< 0.002	0.000823*	0.000685*	0.115	0.00649
	5/14/2025	N/A	N/A	N/A	0.000905*	N/A	N/A	N/A
	5/6/2026	0.00171*	0.0245	< 0.002	N/A	N/A	0.121	N/A
Beryllium, mg/L (CAS NO - 7440-41-7)	6/8/2023	0.177	0.312	0.163	0.0986	0.147	0.457	0.37
	6/8/2023	N/A	0.307	N/A	N/A	N/A	N/A	N/A
	6/13/2024	0.177	0.305	0.16	0.0812	0.129	0.439	0.304
	6/13/2024	N/A	0.307	N/A	N/A	N/A	N/A	N/A
Cadmium, mg/L (CAS NO - 7440-43-9)	6/8/2023	< 0.001	< 0.001	< 0.001	0.000762*	< 0.001	< 0.001	< 0.001
	6/8/2023	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	6/13/2024	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
Chromium, mg/L (CAS NO - 7440-47-3)	6/8/2023	< 0.0002	< 0.0002	< 0.0002	0.000653	< 0.0002	< 0.0002	< 0.0002
	6/8/2023	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 0.0002	< 0.0002	< 0.0002	0.000206	0.000109*	< 0.0002	< 0.0002
	6/13/2024	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A
Chromium, mg/L (CAS NO - 7440-47-3)	6/8/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00501	< 0.005
	6/8/2023	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00483*	< 0.005
	6/13/2024	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
Cobalt, mg/L (CAS NO - 7440-48-4)	6/8/2023	0.00169	0.000981	< 0.0005	0.00182	0.00119	0.00295	0.000572
	6/8/2023	N/A	0.000971	N/A	N/A	N/A	N/A	N/A
	6/13/2024	0.0024	0.000965	< 0.0005	0.00258	0.000941	0.00228	0.000814
	6/13/2024	N/A	0.00093	N/A	N/A	N/A	N/A	N/A
Copper, mg/L (CAS NO - 7440-50-8)	6/8/2023	< 0.005	< 0.005	< 0.005	0.0136	< 0.005	< 0.005	< 0.005
	6/8/2023	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 0.005	< 0.005	< 0.005	0.00832	< 0.005	< 0.005	< 0.005
	6/13/2024	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
Iron, mg/L (CAS NO - 7439-89-6)	3/28/2017	4.53	14.5	26.9	0.414	2.27	18	64.1
	3/28/2017	N/A	N/A	N/A	N/A	N/A	N/A	69.3
	8/24/2017	0.955	9.91	6.39	0.359	2.35	12.3	55.4
	5/2/2018	0.645	21.9	3.88	0.686	5.37	22.2	67.9
	5/2/2018	N/A	N/A	N/A	0.403*	N/A	N/A	N/A
	8/21/2018	0.572	3.34	1.29	0.224*	2.19	9.56	48.2
	8/21/2018	N/A	3.07	N/A	N/A	N/A	N/A	N/A
	9/11/2019	2.07	4.29	2.25	0.538	3.99	6.3	56.2
	9/11/2019	N/A	3.91	N/A	N/A	N/A	N/A	N/A
	3/4/2020	0.339*	16.4	0.864	0.692	1.66	9.12	66.2
	3/4/2020	N/A	N/A	0.503	N/A	N/A	N/A	N/A
	6/2/2021	0.931	8.93	0.651	2.25	0.268	14.1	61.5
	6/2/2021	N/A	20.5	N/A	N/A	N/A	N/A	N/A
	7/13/2022	2.28	121	< 0.5	8.53	0.533	N/A	64.4
	7/13/2022	N/A	70.5	N/A	N/A	N/A	N/A	N/A
	8/18/2022	N/A	N/A	N/A	N/A	N/A	19.8	N/A
	6/8/2023	0.515	4.44	0.121	2.2	0.432	20.8	66.4
	6/8/2023	N/A	6.39	N/A	N/A	N/A	N/A	N/A
	6/13/2024	2.35	4.83	0.931	1.68	0.388	18.1	59.1
	6/13/2024	N/A	6.44	N/A	N/A	N/A	N/A	N/A
	5/14/2025	0.939	24.4	0.169	0.465	0.613	25.4	31.7
	5/14/2025	N/A	N/A	N/A	2.46	N/A	N/A	N/A

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Summary of Groundwater Chemistry

Alter Highway 22 Monofill (82-SDP-04-89C)

	Sample Date	MW-3 UPG	MW-4 UPG	MW-5 UPG	MW-7R DNG	MW-8R DNG	MW-9 DNG	MW-23 DNG
Total Metals Constituents								
Iron, mg/L (CAS NO - 7439-89-6)	5/6/2026	0.919	8.89	0.636	1.1	0.317	27.7	30.4
	5/6/2026	N/A	N/A	N/A	0.625	N/A	N/A	N/A
Lead, mg/L (CAS NO - 7439-92-1)	6/8/2023	< 0.0005	< 0.0005	< 0.0005	0.00221	< 0.0005	0.000423*	< 0.0005
	6/8/2023	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	6/13/2024	0.00264	< 0.0005	< 0.0005	0.00183	< 0.0005	0.000341*	0.00027*
	6/13/2024	N/A	0.000289*	N/A	N/A	N/A	N/A	N/A
Nickel, mg/L (CAS NO - 7440-02-0)	6/8/2023	< 0.005	< 0.005	< 0.005	0.00916	0.00416*	0.0715	< 0.005
	6/8/2023	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 0.005	< 0.005	< 0.005	0.0155	0.0057	0.0643	0.00347*
	6/13/2024	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
Selenium, mg/L (CAS NO - 7782-49-2)	6/8/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00155*	< 0.005
	6/8/2023	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	6/13/2024	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
Silver, mg/L (CAS NO - 7440-22-4)	6/8/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	6/8/2023	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	6/13/2024	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
Thallium, mg/L (CAS NO - 7440-28-0)	6/8/2023	0.00468	< 0.001	0.000688*	0.000288*	< 0.001	< 0.001	< 0.001
	6/8/2023	N/A	0.00631	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	6/13/2024	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
Vanadium, mg/L (CAS NO - 7440-62-2)	6/8/2023	< 0.005	< 0.005	< 0.005	0.00148*	< 0.005	0.0043*	0.00177*
	6/8/2023	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00441*	0.00265*
	6/13/2024	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
Zinc, mg/L (CAS NO - 7440-66-6)	6/8/2023	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	6/8/2023	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	6/13/2024	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
Total Suspended Solids, mg/L (CAS NO - TSS)	6/13/2024	4.5	12	7	685	6.75	50	146
	6/13/2024	N/A	10.7	N/A	N/A	N/A	N/A	N/A
	5/14/2025	11.9	30	8.13	71.7	1.88	60	66
	5/14/2025	N/A	N/A	N/A	377	N/A	N/A	N/A
	5/6/2026	6.13	15.3	6.63	2.5	2	40	52
	5/6/2026	N/A	N/A	N/A	2.25	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.
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Summary of Groundwater Chemistry
Alter Highway 22 Monofill (82-SDP-04-89C)

	Sample Date	MW-3 UPG	MW-4 UPG	MW-5 UPG	MW-7R DNG	MW-8R DNG	MW-9 DNG	MW-23 DNG
Appendix I VOC Constituents								
Benzene, ug/L (CAS NO - 71-43-2)	4/1/2003	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A
	9/1/2003	N/A	N/A	N/A	N/A	N/A	10	N/A
	4/1/2004	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A
	10/1/2004	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A
	4/1/2005	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A
	10/1/2005	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A
	4/1/2006	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A
	9/1/2006	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A
	4/1/2007	N/A	N/A	N/A	N/A	N/A	3	N/A
	10/1/2007	20000	N/A	N/A	N/A	N/A	< 2.5	N/A
	4/1/2008	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	10/1/2008	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	4/1/2009	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A
	10/1/2009	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	4/1/2010	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	10/1/2010	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	10/1/2011	N/A	N/A	N/A	N/A	N/A	< 12.5	N/A
	4/26/2012	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	9/27/2012	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	4/10/2013	N/A	N/A	N/A	N/A	N/A	1.44	N/A
	10/24/2013	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	10/21/2014	N/A	N/A	N/A	< 0.5	< 0.5	1.1*	< 0.5
	3/25/2015	N/A	N/A	N/A	< 0.5	< 0.5	N/A	< 0.5
	4/28/2015	N/A	N/A	N/A	< 0.5	< 0.5	2.72*	< 0.5
	8/24/2015	N/A	N/A	N/A	< 0.5	< 0.5	N/A	< 0.5
	10/8/2015	N/A	N/A	N/A	< 0.5	< 0.5	2.85*	< 0.5
	4/8/2016	N/A	N/A	N/A	N/A	N/A	2.85*	N/A
	8/30/2016	N/A	N/A	N/A	N/A	N/A	3.46*	N/A
	3/28/2017	N/A	N/A	N/A	N/A	N/A	3.34	N/A
	8/24/2017	N/A	N/A	N/A	N/A	N/A	2.06*	N/A
	5/2/2018	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	8/21/2018	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	9/11/2019	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	3/4/2020	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	6/2/2021	N/A	N/A	N/A	N/A	N/A	1.15	N/A
	8/18/2022	N/A	N/A	N/A	N/A	N/A	2.95	N/A
	6/8/2023	N/A	N/A	N/A	N/A	N/A	4.7*	N/A
	6/13/2024	N/A	N/A	N/A	N/A	N/A	6.48	N/A
	5/14/2025	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	5/6/2026	< 0.5	< 0.5	< 0.5	N/A	N/A	3.92	N/A

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

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Summary of Groundwater Chemistry
Alter Highway 22 Monofill (82-SDP-04-89C)

Other Constituents	Sample Date	MW-3 UPG	MW-4 UPG	MW-5 UPG	MW-7R DNG	MW-8R DNG	MW-9 DNG	MW-23 DNG
Chemical Oxygen Demand, mg/L (CAS NO - COD)	7/1/1991	N/A	19	13	N/A	N/A	920	N/A
	11/1/1991	10	8	16	N/A	N/A	1000	N/A
	1/1/1992	12	< 5	12	N/A	N/A	1200	N/A
	4/1/1992	5	10	< 5	N/A	N/A	1200	N/A
	10/1/1992	< 5	< 5	< 5	N/A	N/A	1400	N/A
	5/1/1993	13	19	11	N/A	N/A	1200	N/A
	10/1/1993	29	11	8	N/A	N/A	870	N/A
	4/1/1994	19	6.3	7.7	N/A	N/A	1000	N/A
	10/1/1994	5.2	< 5	< 5	N/A	N/A	1100	N/A
	5/1/1995	N/A	< 5	< 5	N/A	N/A	1000	N/A
	9/1/1995	< 5	< 5	< 5	N/A	N/A	1500	N/A
	4/1/1996	< 5	7.6	< 5	N/A	N/A	1300	N/A
	10/1/1996	15	N/A	N/A	N/A	N/A	1600	N/A
	10/1/1997	< 5	28	< 5	N/A	N/A	700	N/A
	5/1/1998	11	15	< 5	N/A	N/A	910	N/A
	10/1/1998	< 5	16	< 5	N/A	N/A	60	N/A
	4/1/1999	< 5	5.3	< 5	N/A	N/A	1200	N/A
	10/1/1999	< 5	< 5	5.8	N/A	N/A	1300	N/A
	4/1/2000	5	6.1	5	N/A	N/A	1300	N/A
	10/1/2000	< 5	< 5	< 5	N/A	N/A	1400	N/A
	4/1/2001	< 5	7.3	< 5	N/A	N/A	N/A	N/A
	10/1/2001	6.2	7.2	< 5	N/A	N/A	640	N/A
	4/1/2002	9.8	5.7	17	N/A	N/A	900	N/A
	10/1/2002	10	13	9.4	N/A	N/A	840	N/A
	4/1/2003	5.3	< 5	5.8	N/A	N/A	1100	N/A
	9/1/2003	< 5	< 5	< 5	N/A	N/A	1190	N/A
	4/1/2004	8.1	6.4	< 5	N/A	N/A	1320	N/A
	10/1/2004	< 5	< 5	< 5	N/A	N/A	830	N/A
	4/1/2005	< 5	< 5	< 5	N/A	N/A	1100	N/A
	10/1/2005	N/A	< 5	< 5	N/A	N/A	1240	N/A
	4/1/2006	< 5	6.7	6.5	N/A	N/A	1240	N/A
	9/1/2006	< 5	< 5	< 5	N/A	N/A	1470	N/A
	4/1/2007	13.8	9.4	6.9	N/A	N/A	951	N/A
	10/1/2007	N/A	5.6	< 5	N/A	N/A	1260	N/A
	4/1/2008	9.3	9.5	< 5	N/A	N/A	1220	N/A
	10/1/2008	8.6	8	5	N/A	N/A	742	N/A
	4/1/2009	< 5	< 5	< 5	N/A	N/A	496	N/A
	10/1/2009	5.3	< 5	< 5	N/A	N/A	N/A	N/A
	4/1/2010	5.8	< 5	< 5	N/A	N/A	1160	N/A
	10/1/2010	13.4	9.1	7	N/A	N/A	714	N/A
	4/1/2011	6.1	23.2	8.4	N/A	N/A	N/A	N/A
	10/1/2011	< 5	< 5	< 5	N/A	N/A	1460	N/A
	4/26/2012	< 5	< 5	< 5	N/A	N/A	869	N/A
	9/27/2012	N/A	6	< 5	N/A	N/A	772	N/A
	4/10/2013	6.9	5.9	< 5	N/A	N/A	753	N/A
	10/24/2013	N/A	< 5	< 5	N/A	N/A	343	N/A
	10/21/2014	11.2	3.5*	< 5	120	29.5	356	71.9
	10/21/2014	N/A	N/A	8.2	N/A	N/A	N/A	N/A
	3/25/2015	N/A	N/A	N/A	115	19.8	N/A	47.6
	4/28/2015	33.7	20.7	< 5	102	16.5	885	42.7
	8/24/2015	N/A	N/A	N/A	37.2	110	N/A	45.4
	10/8/2015	8.08	9.11	13.9	117	24.2	985	43.1
	4/8/2016	6.22	11.1	4.61*	91.6	112	938	77.1
	4/8/2016	N/A	N/A	N/A	93.8	N/A	N/A	N/A
	8/30/2016	12.9	10.9	8.17	103	14.3	83.8	75.7
	8/30/2016	N/A	N/A	N/A	N/A	21.3	N/A	N/A
	3/28/2017	< 5	< 5	< 5	77.8	15.4	693	54.7
	3/28/2017	N/A	N/A	N/A	N/A	N/A	N/A	56.9
	8/24/2017	16.3	32.5	38	112	43.4	601	68.8
	5/2/2018	< 5	< 5	< 5	86.8	13.9	484	63.6
	5/2/2018	N/A	N/A	N/A	90.6	N/A	N/A	N/A
	8/21/2018	< 5	< 5	< 5	71.3	20.9	462	56.1
	8/21/2018	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/11/2019	11.4	10.1	< 10	87.8	23.2	267	62.6
	9/11/2019	N/A	10.1	N/A	N/A	N/A	N/A	N/A



Summary of Groundwater Chemistry
Alter Highway 22 Monofill (82-SDP-04-89C)

	Sample Date	MW-3 UPG	MW-4 UPG	MW-5 UPG	MW-7R DNG	MW-8R DNG	MW-9 DNG	MW-23 DNG
Other Constituents								
Chemical Oxygen Demand, mg/L (CAS NO - COD)	3/4/2020	4.87*	4.87*	< 5	68.4	20	312	63.8
	3/4/2020	N/A	N/A	< 5	N/A	N/A	N/A	N/A
	6/2/2021	< 5	6.02	< 10	69.7	22.6	387	67.3
	6/2/2021	N/A	10.6	N/A	N/A	N/A	N/A	N/A
	7/13/2022	11.2	15	10.9	57.7	17.3	N/A	72
	7/13/2022	N/A	7.8	N/A	N/A	N/A	N/A	N/A
	8/18/2022	N/A	N/A	N/A	N/A	N/A	493	N/A
	6/8/2023	< 5	< 10	< 10	54.2	< 10	1160	85.9
	6/8/2023	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 25	27.7	48.8	112	69.9	1220	119
	6/13/2024	N/A	29.3	N/A	N/A	N/A	N/A	N/A
	5/14/2025	< 25	< 25	< 25	51.3	< 25	1270	41.6
	5/14/2025	N/A	N/A	N/A	54.5	N/A	N/A	N/A
	5/6/2026	< 25	< 25	< 25	73.1	< 25	877	50.3
	5/6/2026	N/A	N/A	N/A	60.1	N/A	N/A	N/A
Chloride, mg/L (CAS NO - 16887-00-6)	7/1/1991	N/A	51	83	N/A	N/A	1000	N/A
	11/1/1991	110	47	82	N/A	N/A	1000	N/A
	1/1/1992	100	53	88	N/A	N/A	1100	N/A
	4/1/1992	92	44	89	N/A	N/A	930	N/A
	10/1/1992	79	51	85	N/A	N/A	1100	N/A
	5/1/1993	67	53	90	N/A	N/A	1300	N/A
	10/1/1993	70	55	90	N/A	N/A	1200	N/A
	4/1/1994	73	61	90	N/A	N/A	1000	N/A
	10/1/1994	63	56	86	N/A	N/A	780	N/A
	5/1/1995	N/A	64	95	N/A	N/A	760	N/A
	9/1/1995	66	63	92	N/A	N/A	1100	N/A
	4/1/1996	84	72	98	N/A	N/A	810	N/A
	10/1/1996	67	N/A	N/A	N/A	N/A	1200	N/A
	10/1/1997	76	66	130	N/A	N/A	450	N/A
	5/1/1998	61	69	100	N/A	N/A	530	N/A
	10/1/1998	100	70	110	N/A	N/A	630	N/A
	4/1/1999	63	74	120	N/A	N/A	650	N/A
	10/1/1999	73	80	120	N/A	N/A	700	N/A
	4/1/2000	61.3	81	111	N/A	N/A	907	N/A
	10/1/2000	117	94.3	136	N/A	N/A	1470	N/A
	4/1/2001	79.7	96.6	126	N/A	N/A	946	N/A
	10/1/2001	150	96	120	N/A	N/A	110	N/A
	4/1/2002	88.1	92.8	110	N/A	N/A	584	N/A
	10/1/2002	106	101	115	N/A	N/A	777	N/A
	4/1/2003	101	95.8	107	N/A	N/A	741	N/A
	9/1/2003	93.5	107	116	N/A	N/A	800	N/A
	4/1/2004	130	109	114	N/A	N/A	863	N/A
	10/1/2004	126	113	105	N/A	N/A	966	N/A
	4/1/2005	165	133	111	N/A	N/A	688	N/A
	10/1/2005	N/A	136	109	N/A	N/A	788	N/A
	4/1/2006	184	147	109	N/A	N/A	861	N/A
	9/1/2006	103	157	106	N/A	N/A	943	N/A
	4/1/2007	204	162	106	N/A	N/A	821	N/A
	10/1/2007	< 0.1	166	99.9	N/A	N/A	861	N/A
	4/1/2008	243	184	106	N/A	N/A	730	N/A
	10/1/2008	284	185	106	N/A	N/A	514	N/A
	4/1/2009	185	211	107	N/A	N/A	747	N/A
	10/1/2009	120	194	111	N/A	N/A	379	N/A
	4/1/2010	123	232	107	N/A	N/A	616	N/A
	10/1/2010	98.4	235	111	N/A	N/A	595	N/A
	4/1/2011	181	222	109	N/A	N/A	N/A	N/A
	10/1/2011	126	234	122	N/A	N/A	704	N/A
	4/26/2012	134	218	106	N/A	N/A	465	N/A
	9/27/2012	N/A	232	109	N/A	N/A	475	N/A
	4/10/2013	189	213	106	N/A	N/A	454	N/A
	10/24/2013	N/A	217	113	N/A	N/A	406	N/A
	10/21/2014	232	185	115	105	175	277	132
	10/21/2014	N/A	N/A	107	N/A	N/A	N/A	N/A
	3/25/2015	N/A	N/A	N/A	64.3	237	N/A	145
	4/28/2015	218	199	167	64	237	469	146
	8/24/2015	N/A	N/A	N/A	46.2	174	N/A	171

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Summary of Groundwater Chemistry

Alter Highway 22 Monofill (82-SDP-04-89C)

	Sample Date	MW-3 UPG	MW-4 UPG	MW-5 UPG	MW-7R DNG	MW-8R DNG	MW-9 DNG	MW-23 DNG
Other Constituents Chloride, mg/L (CAS NO - 16887-00-6)	10/8/2015	186	192	189	55.9	163	532	145
	4/8/2016	150	188	207	48.9	153	483	217
	4/8/2016	N/A	N/A	N/A	45.8	N/A	N/A	N/A
	8/30/2016	136	177	223	46.9	100	586	230
	8/30/2016	N/A	N/A	N/A	N/A	98.5	N/A	N/A
	3/28/2017	171	225	236	90.9	164	478	214
	3/28/2017	N/A	N/A	N/A	N/A	N/A	N/A	211
	8/24/2017	154	207	211	56.8	146	276	168
	5/2/2018	150	196	204	67.5	123	242	192
	5/2/2018	N/A	N/A	N/A	66.4	N/A	N/A	N/A
	8/21/2018	151	185	200	70.6	163	242	162
	8/21/2018	N/A	187	N/A	N/A	N/A	N/A	N/A
	9/11/2019	148	175	185	51.4	143	131	96.4
	9/11/2019	N/A	174	N/A	N/A	N/A	N/A	N/A
	3/4/2020	150	169	182	41.1	162	185	71
	3/4/2020	N/A	N/A	189	N/A	N/A	N/A	N/A
	6/2/2021	146	161	158	24.8	153	228	83.5
	6/2/2021	N/A	163	N/A	N/A	N/A	N/A	N/A
	7/13/2022	149	144	129	23	206	N/A	88.3
	7/13/2022	N/A	146	N/A	N/A	N/A	N/A	N/A
	8/18/2022	N/A	N/A	N/A	N/A	N/A	654	N/A
	6/8/2023	150	158	61.5	23.7	209	171	51.8
	6/8/2023	N/A	159	N/A	N/A	N/A	N/A	N/A
	6/13/2024	141	156	113	30.9	181	640	99.1
	6/13/2024	N/A	158	N/A	N/A	N/A	N/A	N/A
	5/14/2025	175	171	125	28.6	236	670	43.1
	5/14/2025	N/A	N/A	N/A	29	N/A	N/A	N/A
	5/6/2026	179	191	137	25.7	196	723	42.8
	5/6/2026	N/A	N/A	N/A	25.7	N/A	N/A	N/A
Nitrogen, Ammonia, mg/L (CAS NO - 7664-41-7)	7/1/1991	N/A	< 0.2	< 0.2	N/A	N/A	0.9	N/A
	11/1/1991	< 0.2	< 0.2	< 0.2	N/A	N/A	0.9	N/A
	1/1/1992	< 0.2	< 0.2	< 0.2	N/A	N/A	18	N/A
	4/1/1992	< 0.2	< 0.2	< 0.2	N/A	N/A	2.2	N/A
	10/1/1992	< 0.2	< 0.2	< 0.2	N/A	N/A	0.55	N/A
	5/1/1993	< 0.2	< 0.2	0.23	N/A	N/A	0.94	N/A
	10/1/1993	< 0.2	0.56	0.37	N/A	N/A	0.43	N/A
	4/1/1994	0.32	< 0.2	0.2	N/A	N/A	1	N/A
	10/1/1994	< 0.2	< 0.2	< 0.2	N/A	N/A	0.37	N/A
	5/1/1995	N/A	< 0.2	0.2	N/A	N/A	1.4	N/A
	9/1/1995	0.36	< 0.2	0.25	N/A	N/A	2	N/A
	4/1/1996	< 0.2	< 0.2	0.24	N/A	N/A	12	N/A
	10/1/1996	0.27	N/A	N/A	N/A	N/A	1.1	N/A
	10/1/1997	< 0.2	< 0.2	0.35	N/A	N/A	1.3	N/A
	5/1/1998	< 0.2	< 0.2	< 0.2	N/A	N/A	0.64	N/A
	10/1/1998	< 0.2	< 0.2	0.22	N/A	N/A	1.7	N/A
	4/1/1999	< 0.2	< 0.2	0.2	N/A	N/A	1.4	N/A
	10/1/1999	0.23	< 0.2	0.34	N/A	N/A	0.66	N/A
	4/1/2000	0.2	< 0.2	0.37	N/A	N/A	1.55	N/A
	10/1/2000	< 0.2	< 0.2	0.24	N/A	N/A	1.61	N/A
	4/1/2001	< 0.2	< 0.2	< 0.2	N/A	N/A	0.82	N/A
	10/1/2001	< 0.2	< 0.2	< 0.2	N/A	N/A	1.29	N/A
	4/1/2002	< 0.2	< 0.2	0.21	N/A	N/A	1.28	N/A
	10/1/2002	< 0.2	< 0.2	< 0.2	N/A	N/A	1.4	N/A
	4/1/2003	< 0.2	< 0.2	0.25	N/A	N/A	1.26	N/A
	9/1/2003	0.39	< 0.2	0.32	N/A	N/A	3.03	N/A
	4/1/2004	< 0.2	< 0.2	0.25	N/A	N/A	1.54	N/A
	10/1/2004	< 0.2	< 0.2	< 0.2	N/A	N/A	< 0.2	N/A
	4/1/2005	< 0.2	< 0.2	0.28	N/A	N/A	1.37	N/A
	10/1/2005	N/A	< 0.2	< 0.2	N/A	N/A	1.79	N/A
	4/1/2006	< 0.2	< 0.2	0.29	N/A	N/A	3.03	N/A
	9/1/2006	0.55	< 0.2	0.32	N/A	N/A	2.06	N/A
	4/1/2007	< 0.2	< 0.2	0.219	N/A	N/A	1.6	N/A
	10/1/2007	0.31	< 0.2	0.33	N/A	N/A	0.21	N/A
	4/1/2008	< 0.2	< 0.2	0.328	N/A	N/A	1.59	N/A
	10/1/2008	< 0.2	< 0.2	< 0.2	N/A	N/A	1.08	N/A
	4/1/2009	< 0.2	< 0.2	0.232	N/A	N/A	1.41	N/A

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Other Constituents	Sample Date	MW-3 UPG	MW-4 UPG	MW-5 UPG	MW-7R DNG	MW-8R DNG	MW-9 DNG	MW-23 DNG
Nitrogen, Ammonia, mg/L (CAS NO - 7664-41-7)	10/1/2009	< 0.2	< 0.2	0.268	N/A	N/A	1.8	N/A
	4/1/2010	< 0.2	< 0.2	< 0.2	N/A	N/A	1.48	N/A
	10/1/2010	< 0.2	< 0.2	< 0.2	N/A	N/A	1.4	N/A
	4/1/2011	< 0.2	< 0.2	0.23	N/A	N/A	N/A	N/A
	10/1/2011	0.276	< 0.2	0.256	N/A	N/A	1.63	N/A
	4/26/2012	< 0.2	< 0.2	< 0.2	N/A	N/A	1.45	N/A
	9/27/2012	N/A	< 0.2	0.336	N/A	N/A	1.63	N/A
	4/10/2013	< 0.2	< 0.2	< 0.2	N/A	N/A	1.11	N/A
	10/24/2013	N/A	0.131	0.309	N/A	N/A	2.08	N/A
	10/21/2014	0.152*	0.201	0.332	0.1*	0.083*	1.22	1.23
	10/21/2014	N/A	N/A	0.089*	N/A	N/A	N/A	N/A
	3/25/2015	N/A	N/A	N/A	0.22	< 0.2	N/A	1.13
	4/28/2015	0.102*	0.2	0.401	< 0.2	< 0.2	0.853	1.1
	8/24/2015	N/A	N/A	N/A	< 0.2	0.223	N/A	1.2
	10/8/2015	0.086*	0.154*	0.474	< 0.2	0.089*	1.63	1.15
	4/8/2016	< 0.2	0.174*	0.363	< 0.2	< 0.2	1.57	1.41
	4/8/2016	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A
	8/30/2016	0.109*	0.186*	0.291	< 0.2	< 0.2	2.06	1.52
	8/30/2016	N/A	N/A	N/A	N/A	< 0.2	N/A	N/A
	3/28/2017	0.511	0.142*	< 0.2	< 0.2	< 0.2	1.24	1.47
	3/28/2017	N/A	N/A	N/A	N/A	N/A	N/A	1.36
	8/24/2017	0.677	0.177*	0.3	< 0.2	< 0.2	1.48	1.42
	5/2/2018	0.163*	< 0.2	< 0.2	< 0.2	< 0.2	1.31	1.26
	5/2/2018	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A
	8/21/2018	0.215	0.176*	< 0.2	< 0.2	< 0.2	1.57	1.41
	8/21/2018	N/A	0.215	N/A	N/A	N/A	N/A	N/A
	9/11/2019	0.63	0.151*	0.173*	< 0.2	< 0.2	1.38	2
	9/11/2019	N/A	0.135*	N/A	N/A	N/A	N/A	N/A
	3/4/2020	0.127*	0.118*	< 0.2	< 0.2	< 0.2	1.38	1.57
	3/4/2020	N/A	N/A	< 0.2	N/A	N/A	N/A	N/A
	6/2/2021	0.596	0.181*	< 0.2	< 0.2	< 0.2	1.66	2.01
	6/2/2021	N/A	0.171*	N/A	N/A	N/A	N/A	N/A
	7/13/2022	0.469	0.515	< 0.2	0.122*	< 0.2	N/A	3.39
	7/13/2022	N/A	0.311	N/A	N/A	N/A	N/A	N/A
	8/18/2022	N/A	N/A	N/A	N/A	N/A	2.59	N/A
	6/8/2023	0.614	0.3	< 0.2	< 0.2	0.101*	3.28	3.71
	6/8/2023	N/A	0.233	N/A	N/A	N/A	N/A	N/A
	6/13/2024	0.909	0.216*	< 0.5	0.329*	0.268*	2.89	4
	6/13/2024	N/A	0.239*	N/A	N/A	N/A	N/A	N/A
	5/14/2025	0.606	< 0.5	< 0.5	< 0.5	< 0.5	2.53	2.17
	5/14/2025	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A
	5/6/2026	0.555	0.202*	< 0.5	< 0.5	< 0.5	2.44	2.59
	5/6/2026	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A
pH, S.U. (CAS NO - PH)	7/1/1991	N/A	7.3	7.1	N/A	N/A	6.8	N/A
	11/1/1991	6.8	7.2	6.9	N/A	N/A	6.7	N/A
	1/1/1992	6.9	6.9	6.9	N/A	N/A	6.5	N/A
	4/1/1992	7	6.8	6.8	N/A	N/A	6.9	N/A
	10/1/1992	7.5	7.6	8.1	N/A	N/A	6.9	N/A
	5/1/1993	7	7	7	N/A	N/A	N/A	N/A
	4/1/1994	7.4	7.5	8.2	N/A	N/A	7.2	N/A
	10/1/1994	7.4	7.7	7.5	N/A	N/A	6.9	N/A
	5/1/1995	7.8	7.7	7.7	N/A	N/A	6.8	N/A
	9/1/1995	7.5	7.5	7.6	N/A	N/A	7	N/A
	1/1/1996	6.98	N/A	N/A	N/A	N/A	N/A	N/A
	4/1/1996	7.1	7.6	7.32	N/A	N/A	6.88	N/A
	10/1/1996	7.05	N/A	N/A	N/A	N/A	6.74	N/A
	10/1/1997	6.9	7.02	7.01	N/A	N/A	6.76	N/A
	10/1/1998	7.3	7.2	7.2	N/A	N/A	6.9	N/A
	4/1/1999	7.15	7.37	7.52	N/A	N/A	7.08	N/A
	10/1/1999	6.91	7.08	7.07	N/A	N/A	6.73	N/A
	4/1/2000	7.01	7.01	6.99	N/A	N/A	7.06	N/A
	10/1/2000	6.89	7.05	7.13	N/A	N/A	6.7	N/A
	4/1/2001	6.81	6.85	6.83	N/A	N/A	6.76	N/A
	10/1/2001	6.96	7.1	7.14	N/A	N/A	6.98	N/A
	4/1/2002	6.61	7.24	7.34	N/A	N/A	6.88	N/A
	10/1/2002	6.95	7.02	7.13	N/A	N/A	6.89	N/A

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Alter Highway 22 Monofill (82-SDP-04-89C)

	Sample Date	MW-3 UPG	MW-4 UPG	MW-5 UPG	MW-7R DNG	MW-8R DNG	MW-9 DNG	MW-23 DNG
Other Constituents pH, S.U. (CAS NO - PH)	4/1/2003	7.09	7.22	7.11	N/A	N/A	7.28	N/A
	9/1/2003	6.64	7.3	6.98	N/A	N/A	6.94	N/A
	4/1/2004	7.13	7.35	7.35	N/A	N/A	6.85	N/A
	10/1/2004	6.38	6.65	6.41	N/A	N/A	6	N/A
	4/1/2005	6.84	7.17	7.64	N/A	N/A	6.78	N/A
	10/1/2005	N/A	7.03	7.38	N/A	N/A	7.01	N/A
	4/1/2006	7.02	7.38	7.17	N/A	N/A	6.95	N/A
	9/1/2006	7.78	7.35	7.54	N/A	N/A	7.31	N/A
	4/1/2007	7.03	7.26	7.21	N/A	N/A	6.38	N/A
	10/1/2007	16.44	7.11	7.15	N/A	N/A	6.67	N/A
	4/1/2008	7.28	7.52	7.49	N/A	N/A	6.96	N/A
	10/1/2008	7.08	7.37	7.45	N/A	N/A	7.18	N/A
	4/1/2009	7.1	7.5	7.38	N/A	N/A	6.9	N/A
	10/1/2009	N/A	12.8	N/A	N/A	N/A	6.99	N/A
	4/1/2010	6.51	7.23	7.74	N/A	N/A	7.59	N/A
	10/1/2010	6.98	7.26	7.24	N/A	N/A	6.88	N/A
	4/1/2011	7.1	7.22	7.54	N/A	N/A	N/A	N/A
	10/1/2011	7.5	7.26	8.05	N/A	N/A	6.99	N/A
	4/26/2012	6.62	6.74	7.7	N/A	N/A	6.75	N/A
	9/27/2012	N/A	7.8	7.9	N/A	N/A	7.93	N/A
	4/10/2013	7.95	7.8	7.99	N/A	N/A	8	N/A
	10/24/2013	N/A	7.8	7.95	N/A	N/A	8.1	N/A
	10/21/2014	8.51	8.73	8.91	8.35	9.05	8.2	9.75
	3/25/2015	N/A	N/A	N/A	7.83	7.8	N/A	7.4
	4/28/2015	7.17	7.32	7.09	7.47	7.15	7.631	6.81
	8/24/2015	N/A	N/A	N/A	7.45	7.13	N/A	7.35
	10/8/2015	7.29	7.48	7.31	7.43	7.08	7.33	7
	4/8/2016	7.25	7.32	7.25	7.34	7.29	7.13	6.73
	8/30/2016	7.11	7.26	7.18	7.31	6.85	6.99	6.9
	3/28/2017	7.08	7.28	7.47	7.35	6.99	7.23	6.79
	8/24/2017	7.01	7.17	7.48	7.21	7.19	7.17	6.71
	5/2/2018	7.52	7.95	7.74	7.61	7.01	7.36	6.7
	8/21/2018	7.44	7.58	7.52	7.35	7.41	7.32	7.4
	9/11/2019	7.03	7.22	7.51	7.07	6.74	7.38	6.67
	3/4/2020	6.89	7.06	7.66	7.02	6.78	7.24	6.56
	6/2/2021	6.84	7.07	7.23	7.14	6.7	7.13	6.56
	7/13/2022	6.57	6.87	7.2	7.05	6.6	N/A	6.42
	8/18/2022	N/A	N/A	N/A	N/A	N/A	6.83	N/A
	6/8/2023	7.13	7.37	7.8	7.35	6.95	7.09	6.82
	6/13/2024	6.69	6.93	7.26	6.96	6.67	6.79	6.42
	5/14/2025	6.83	7.06	7.38	7.1	6.73	6.93	6.39
	5/6/2026	6.82	7.04	7.36	7.13	6.75	6.9	6.45
Specific Conductance, umhos/cm (CAS NO - SC)	7/1/1991	N/A	840	860	N/A	N/A	N/A	N/A
	11/1/1991	800	610	670	N/A	N/A	N/A	N/A
	1/1/1992	820	610	670	N/A	N/A	N/A	N/A
	4/1/1992	1100	820	870	N/A	N/A	N/A	N/A
	10/1/1992	1200	1000	910	N/A	N/A	N/A	N/A
	5/1/1993	1100	900	1000	N/A	N/A	N/A	N/A
	4/1/1994	700	N/A	N/A	N/A	N/A	N/A	N/A
	10/1/1994	1000	900	800	N/A	N/A	N/A	N/A
	5/1/1995	600	700	700	N/A	N/A	N/A	N/A
	9/1/1995	1120	1070	1080	N/A	N/A	N/A	N/A
	1/1/1996	1040	N/A	N/A	N/A	N/A	N/A	N/A
	4/1/1996	1050	1020	960	N/A	N/A	N/A	N/A
	10/1/1996	1060	N/A	N/A	N/A	N/A	N/A	N/A
	10/1/1997	1080	980	970	N/A	N/A	N/A	N/A
	5/1/1998	800	900	900	N/A	N/A	N/A	N/A
	10/1/1998	2250	1450	2050	N/A	N/A	N/A	N/A
	4/1/1999	1140	1240	1260	N/A	N/A	N/A	N/A
	10/1/1999	1120	1090	1100	N/A	N/A	N/A	N/A
	4/1/2000	1050	1035	1110	N/A	N/A	N/A	N/A
	10/1/2000	1120	1000	1160	N/A	N/A	10	N/A
	4/1/2001	1050	1140	1110	N/A	N/A	N/A	N/A
	10/1/2001	1030	1060	1010	N/A	N/A	N/A	N/A
	4/1/2002	1040	1120	10.8	N/A	N/A	4060	N/A
	10/1/2002	1370	1240	1130	N/A	N/A	4640	N/A



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Other Constituents	Sample Date	MW-3 UPG	MW-4 UPG	MW-5 UPG	MW-7R DNG	MW-8R DNG	MW-9 DNG	MW-23 DNG
Specific Conductance, umhos/cm (CAS NO - SC)	4/1/2003	1590	1170	1110	N/A	N/A	5610	N/A
	9/1/2003	1210	1160	1120	N/A	N/A	4660	N/A
	4/1/2004	1270	1080	1010	N/A	N/A	5560	N/A
	10/1/2004	1220	1050	980	N/A	N/A	4480	N/A
	4/1/2005	1240	1190	1000	N/A	N/A	5020	N/A
	10/1/2005	N/A	1340	1120	N/A	N/A	5760	N/A
	4/1/2006	1440	1340	1113	N/A	N/A	6130	N/A
	9/1/2006	10.61	1510	1060	N/A	N/A	6900	N/A
	4/1/2007	1080	970	780	N/A	N/A	5640	N/A
	10/1/2007	N/A	1240	980	N/A	N/A	5170	N/A
	4/1/2008	1620	1440	1120	N/A	N/A	5450	N/A
	10/1/2008	1650	1310	1010	N/A	N/A	4230	N/A
	4/1/2009	1250	1350	1020	N/A	N/A	5070	N/A
	10/1/2009	1010	N/A	900	N/A	N/A	2910	N/A
	4/1/2010	950	1190	740	N/A	N/A	3450	N/A
	10/1/2010	1070	1430	990	N/A	N/A	3870	N/A
	4/1/2011	220	1940	1070	N/A	N/A	N/A	N/A
	10/1/2011	1200	1550	1080	N/A	N/A	6120	N/A
	4/26/2012	1226	1527	970	N/A	N/A	5610	N/A
	9/27/2012	N/A	1450	1010	N/A	N/A	4960	N/A
	4/10/2013	1015	1430	1020	N/A	N/A	500	N/A
	10/24/2013	N/A	1423	1015	N/A	N/A	499	N/A
	10/21/2014	1550	1454	1100	1020	1750	800	1623
	3/25/2015	N/A	N/A	N/A	2656	1739	N/A	1765
	4/28/2015	1289	1317	1234	2366	1559	2640	1772
	8/24/2015	N/A	N/A	N/A	2314	1331	N/A	1636
	10/8/2015	1183	1215	1168	2360	1384	1874	1562
	4/8/2016	1217	1498	1458	2223	1305	4936	2660
	8/30/2016	1276	1457	1593	2635	1390	5948	2444
	3/28/2017	999	1113	1047	1586	1027	3559	2033
	8/24/2017	1382	1514	1367	2677	2481	3387	2455
	5/2/2018	1523	1586	1337	2422	1013	3322	2727
	8/21/2018	1423	1394	1216	1857	1583	3179	2092
	9/11/2019	1132.6	1200	1132.4	2233.5	1601.8	2212.1	1906.8
	3/4/2020	1354	1367	1216	1984	1642	2988	2341
	6/2/2021	1330.1	1328.7	1192	1747.9	1499.3	3162.4	2201.5
	7/13/2022	1257	1258.2	1043	1612	1621.4	N/A	2001.3
	8/18/2022	N/A	N/A	N/A	N/A	N/A	5097.6	N/A
	6/8/2023	1246.4	1250.4	1023.3	1579.8	1427.7	5226.9	2014.3
	6/13/2024	1492.7	1510.1	1163.4	2383.4	1722.3	6028.9	2320.7
	5/14/2025	1346.7	1330.7	955.4	1653.6	1634.1	5299.7	1378.1
	5/6/2026	974.3	996.4	741.8	1254.3	1144.8	4039.9	1113.3
Total Organic Halogens, mg/L (CAS NO - TOX)	7/1/1991	N/A	0.09	0.01	N/A	N/A	0.06	N/A
	11/1/1991	N/A	0.1	N/A	N/A	N/A	N/A	N/A
	1/1/1992	N/A	0.11	N/A	N/A	N/A	N/A	N/A
	4/1/1992	N/A	0.12	N/A	N/A	N/A	N/A	N/A
	10/1/1992	< 0.01	0.13	0.03	N/A	N/A	0.02	N/A
	5/1/1993	N/A	0.14	N/A	N/A	N/A	N/A	N/A
	10/1/1993	0.01	0.15	< 0.01	N/A	N/A	0.42	N/A
	4/1/1994	0.03	0.16	0.02	N/A	N/A	N/A	N/A
	10/1/1994	N/A	0.17	N/A	N/A	N/A	1.26	N/A
	9/1/1995	< 0.01	< 0.01	< 0.01	N/A	N/A	0.74	N/A
	10/1/1996	0.02	N/A	N/A	N/A	N/A	2.06	N/A
	10/1/1997	< 0.01	< 0.01	< 0.01	N/A	N/A	0.73	N/A
	10/1/1998	0.02	< 0.01	< 0.01	N/A	N/A	1.68	N/A
	10/1/1999	< 0.01	< 0.01	< 0.01	N/A	N/A	1.51	N/A
	10/1/2000	0.03	< 0.01	0.02	N/A	N/A	0.82	N/A
	10/1/2001	0.02	< 0.01	< 0.01	N/A	N/A	0.64	N/A
	10/1/2002	0.05	0.03	0.02	N/A	N/A	1.3	N/A
	9/1/2003	0.03	< 0.01	< 0.01	N/A	N/A	1.32	N/A
	10/1/2004	0.04	0.02	0.02	N/A	N/A	1.3	N/A
	4/1/2005	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A
	10/1/2005	N/A	< 0.01	< 0.01	N/A	N/A	1.57	N/A
	4/1/2006	N/A	N/A	N/A	N/A	N/A	1.68	N/A
	9/1/2006	0.1	0.01	< 0.01	N/A	N/A	1.74	N/A
	10/1/2007	6.88	< 0.01	< 0.01	N/A	N/A	1.58	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Alter Highway 22 Monofill (82-SDP-04-89C)

Other Constituents	Sample Date	MW-3 UPG	MW-4 UPG	MW-5 UPG	MW-7R DNG	MW-8R DNG	MW-9 DNG	MW-23 DNG
Total Organic Halogens, mg/L (CAS NO - TOX)	10/1/2008	0.0264	< 0.01	< 0.01	N/A	N/A	0.728	N/A
	10/1/2009	0.0219	N/A	< 0.01	N/A	N/A	0.962	N/A
	10/1/2010	0.0238	0.0197	0.0238	N/A	N/A	6.82	N/A
	10/1/2011	0.0125	0.0105	< 0.01	N/A	N/A	1.48	N/A
	9/27/2012	N/A	0.584	0.019	N/A	N/A	0.682	N/A
	10/24/2013	N/A	0.125	0.0206	N/A	N/A	0.481	N/A
	10/21/2014	0.147	0.124	0.0429	0.143	0.109	0.669	0.0836
	10/21/2014	N/A	N/A	0.0798	N/A	N/A	N/A	N/A
	10/8/2015	0.0969	0.0761	0.017*	0.0738	0.0951	0.964	0.194
	8/30/2016	0.0193*	0.0196*	0.0229*	0.0708	0.11	0.92	0.22
	8/30/2016	N/A	N/A	N/A	N/A	0.0763	N/A	N/A
	8/24/2017	0.015*	< 0.03	0.0212*	0.0178*	0.0506	0.125	N/A
	8/21/2018	0.0212*	0.0199*	0.0145*	0.055	0.0557	0.201	0.248
	8/21/2018	N/A	0.018*	N/A	N/A	N/A	N/A	N/A
	9/11/2019	0.0123	0.042	0.0503	0.137	0.206	0.127	0.488
	9/11/2019	N/A	0.107	N/A	N/A	N/A	N/A	N/A
	3/4/2020	0.0353*	0.0392*	0.127	0.103	0.0953	0.102	0.132
	3/4/2020	N/A	N/A	0.124	N/A	N/A	N/A	N/A
	6/2/2021	0.0918	0.105	0.0454	0.0792	0.149	0.467	0.301
	6/2/2021	N/A	0.184	N/A	N/A	N/A	N/A	N/A
	7/13/2022	0.0702	0.0743	0.0555	0.0769	0.131	N/A	0.384
	7/13/2022	N/A	0.125	N/A	N/A	N/A	N/A	N/A
	8/18/2022	N/A	N/A	N/A	N/A	N/A	1.34	N/A
	6/8/2023	0.0193*	0.152	0.0282*	0.0561	0.123	1.24	0.271
	6/8/2023	N/A	0.0245*	N/A	N/A	N/A	N/A	N/A
	6/13/2024	< 0.04	0.0936	0.0294*	0.0881	0.126	1.56	0.0882
	6/13/2024	N/A	0.0257*	N/A	N/A	N/A	N/A	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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



Appendix D

Statistical Report

STATISTICAL METHODOLOGY

Statistical Method

The approved Groundwater Assessment Plan Update (Doc #79942) proposed the use of parametric and non-parametric prediction limits for statistical evaluation in lieu of the control limits required by Iowa Administrative Code 567-115. Prediction limits are the recommended approach of the "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities - Unified Guidance," as published by the United States Environmental Protection Agency. Prediction limits were used for the statistical evaluation during this reporting period.

Diagnostic and Exploratory Evaluations and Tests of Assumptions

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

- Time series plots
- Shapiro-Wilk test for normality
- Ohio EPA Method for Outliers

Management of Non-Detect Data

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

Management of Outliers

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

Management of Data (ND data < 75%)

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

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

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

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

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

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

Interwell Prediction Limits

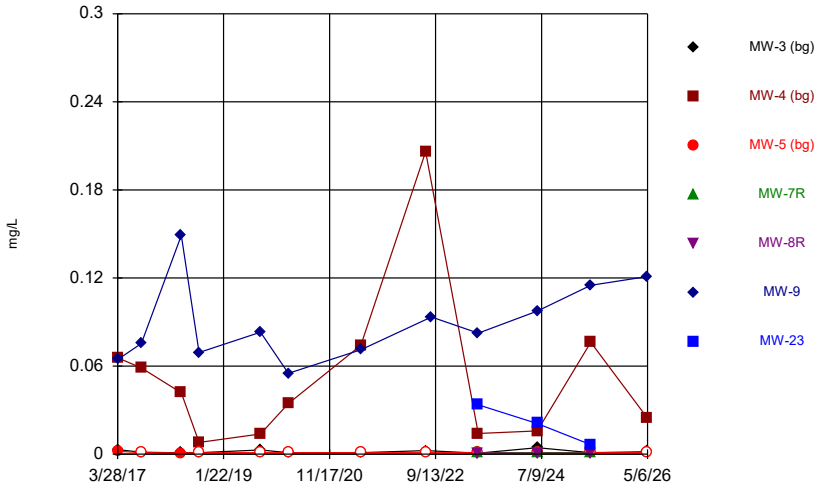
Interwell prediction limits were selected as the appropriate statistical method for the determination of constituents statistically above background. Prediction limits are established using the process below. Data from the most recent sampling events is compared to the prediction limits for the determination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

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

Attachment A

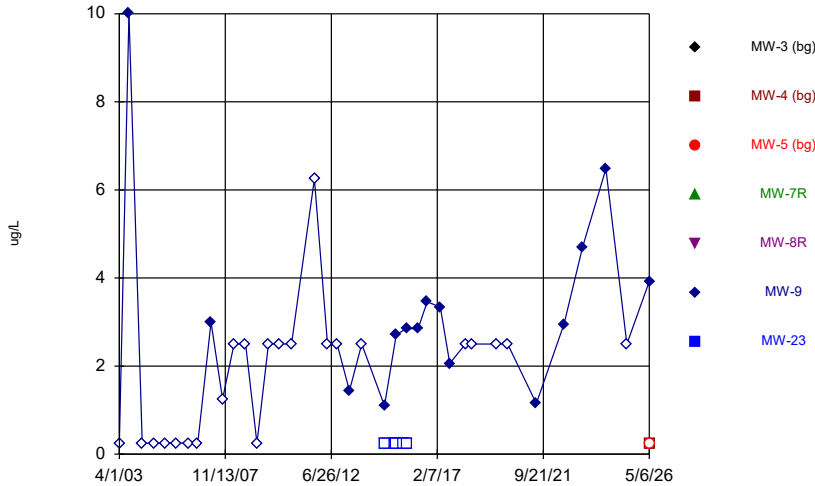
Time Series Graphs

Time Series



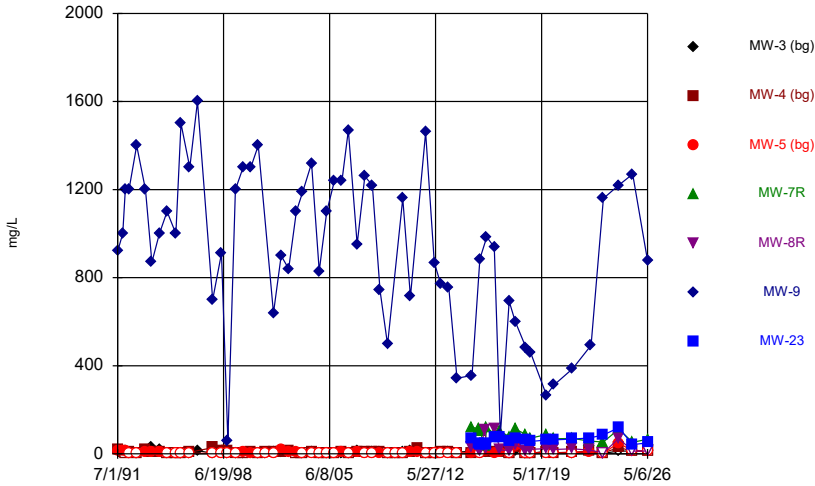
Constituent: Arsenic Analysis Run 6/23/2026 1:52 PM View: 2026AWQR-Time_Series
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Time Series



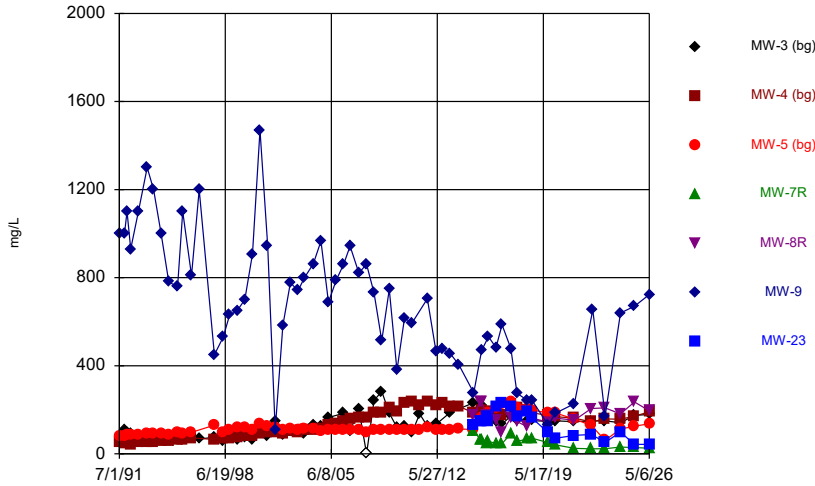
Constituent: Benzene Analysis Run 6/23/2026 1:52 PM View: 2026AWQR-Time_Series
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Time Series



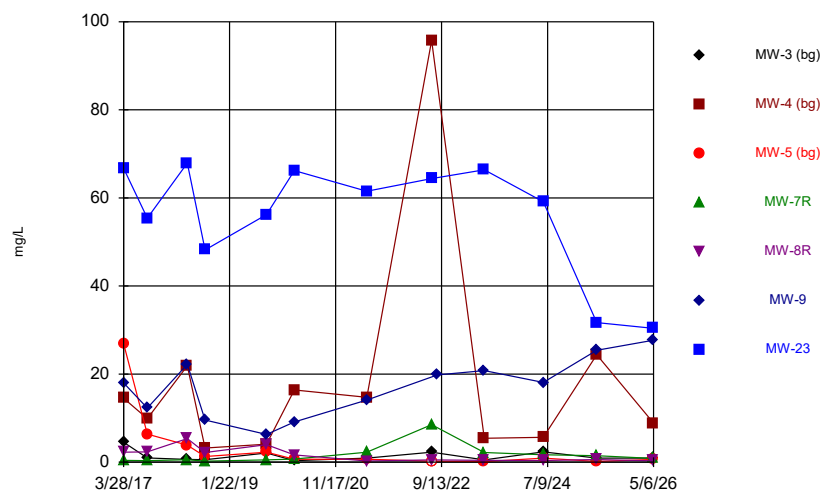
Constituent: Chemical Oxygen Demand Analysis Run 6/23/2026 1:52 PM View: 2026AWQR-Time_Series
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Time Series

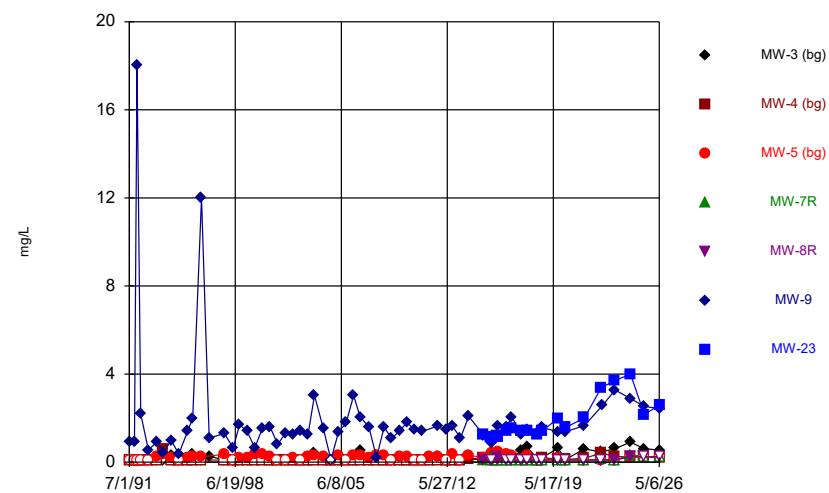


Constituent: Chloride Analysis Run 6/23/2026 1:52 PM View: 2026AWQR-Time_Series
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

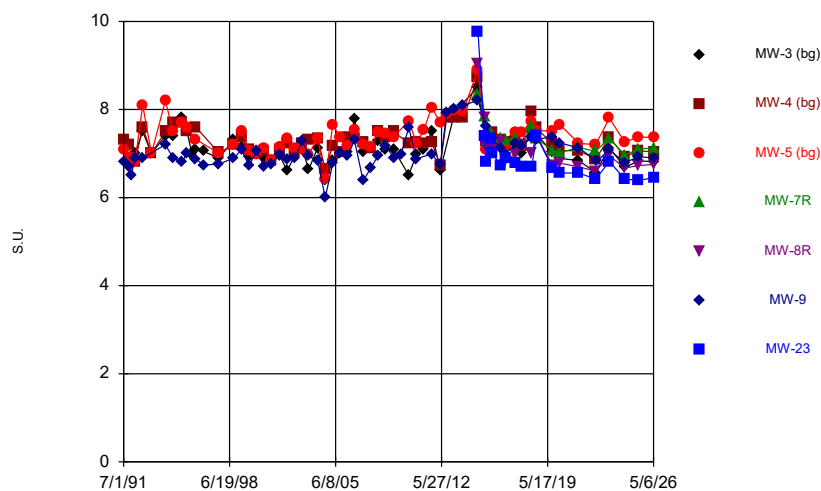
Time Series



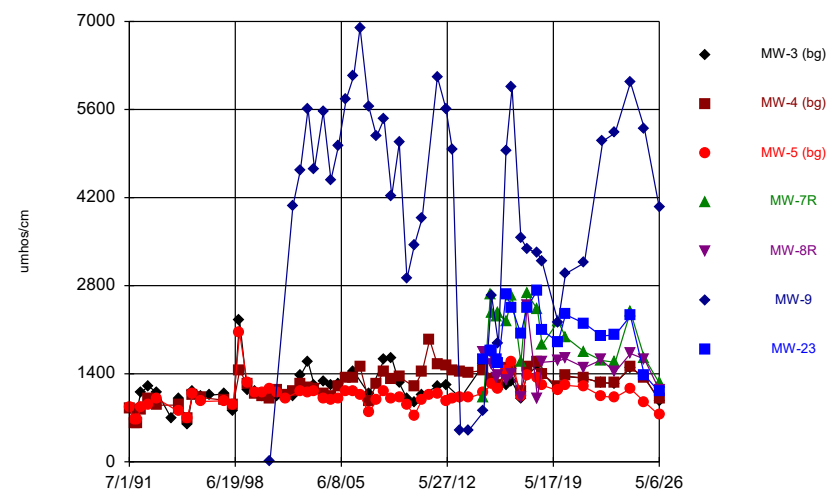
Time Series



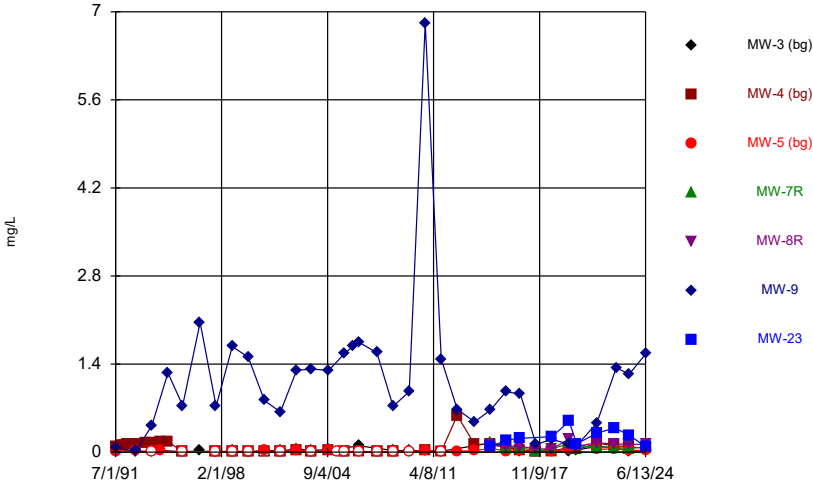
Time Series



Time Series



Time Series



Constituent: Total Organic Halogens Analysis Run 6/23/2026 1:52 PM View: 2026AWQR-Time_Series
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Attachment B

Normality Test

Shapiro-Wilk Normality Test

Constituent: Arsenic Analysis Run 6/23/2026 2:16 PM View: 2026AWQR-Normality
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Well	Transformation	Calculated	Critical	Normal
MW-3 (bg) (n = 12, alpha = 0.01)				
	no	0.8347	0.805	Yes
	square root	0.88	0.805	Yes
	square	0.7217	0.805	No
	cube root	0.8925	0.805	Yes
	cube	0.6086	0.805	No
	natural log	0.9127	0.805	Yes
	x^4	0.5185	0.805	No
	x^5	0.455	0.805	No
	x^6	0.4123	0.805	No
MW-4 (bg) (n = 12, alpha = 0.01)				
	no	0.7387	0.805	No
	square root	0.8929	0.805	Yes
	square	0.4816	0.805	No
	cube root	0.9292	0.805	Yes
	cube	0.3798	0.805	No
	natural log	0.9645	0.805	Yes
	x^4	0.3453	0.805	No
	x^5	0.3334	0.805	No
	x^6	0.3293	0.805	No
MW-5 (bg) (n = 12, alpha = 0.01)				
	no	0.4351	0.805	No
	square root	0.4616	0.805	No
	square	0.3931	0.805	No
	cube root	0.4711	0.805	No
	cube	0.3652	0.805	No
	natural log	0.4908	0.805	No
	x^4	0.3483	0.805	No
	x^5	0.3385	0.805	No
	x^6	0.3331	0.805	No
Pooled Background (bg) (n = 36, alpha = 0.01)				
	no	0.5236	0.912	No
	square root	0.6998	0.912	No
	square	0.2822	0.912	No
	cube root	0.7455	0.912	No
	cube	0.2054	0.912	No
	natural log	0.8023	0.912	No
	x^4	0.1819	0.912	No
	x^5	0.1742	0.912	No
	x^6	0.1716	0.912	No

Shapiro-Wilk Normality Test

Constituent: Chemical Oxygen Demand Analysis Run 6/23/2026 2:16 PM View: 2026AWQR-Normality
 ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Well	Transformation	Calculated	Critical	Normal
MW-3 (bg) (n = 57 - Shapiro-Francia used, alpha = 0.01)				
	no	0.771	0.944	No
	square root	0.8649	0.944	No
	square	0.4757	0.944	No
	cube root	0.8783	0.944	No
	cube	0.2908	0.944	No
	natural log	0.8817	0.944	No
	x^4	0.2109	0.944	No
	x^5	0.175	0.944	No
	x^6	0.1563	0.944	No
MW-4 (bg) (n = 62 - Shapiro-Francia used, alpha = 0.01)				
	no	0.7888	0.947	No
	square root	0.8794	0.947	No
	square	0.557	0.947	No
	cube root	0.8958	0.947	No
	cube	0.4037	0.947	No
	natural log	0.9049	0.947	No
	x^4	0.3186	0.947	No
	x^5	0.2676	0.947	No
	x^6	0.2337	0.947	No
MW-5 (bg) (n = 62 - Shapiro-Francia used, alpha = 0.01)				
	no	0.5134	0.947	No
	square root	0.6843	0.947	No
	square	0.2544	0.947	No
	cube root	0.7267	0.947	No
	cube	0.1694	0.947	No
	natural log	0.778	0.947	No
	x^4	0.1408	0.947	No
	x^5	0.127	0.947	No
	x^6	0.118	0.947	No
Pooled Background (bg) (n = 181: Chi-Squared used, alpha = 0.05)				
	no	251.4	14.07	No
	square root	239.7	14.07	No
	square	545.8	14.07	No
	cube root	252.9	14.07	No
	cube	1258	14.07	No
	natural log	258.1	14.07	No
	x^4	1381	14.07	No
	x^5	1455	14.07	No
	x^6	1474	14.07	No

Shapiro-Wilk Normality Test

Constituent: Chloride Analysis Run 6/23/2026 2:16 PM View: 2026AWQR-Normality
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Well	Transformation	Calculated	Critical	Normal
MW-3 (bg) (n = 58 - Shapiro-Francia used, alpha = 0.01)				
	no	0.966	0.944	Yes
	square root	0.9128	0.944	No
	square	0.8514	0.944	No
	cube root	0.8072	0.944	No
	cube	0.691	0.944	No
	natural log	0.3865	0.944	No
	x^4	0.5393	0.944	No
	x^5	0.4189	0.944	No
	x^6	0.3312	0.944	No
MW-4 (bg) (n = 62 - Shapiro-Francia used, alpha = 0.01)				
	no	0.9367	0.947	No
	square root	0.931	0.947	No
	square	0.9232	0.947	No
	cube root	0.9269	0.947	No
	cube	0.8874	0.947	No
	natural log	0.9151	0.947	No
	x^4	0.8409	0.947	No
	x^5	0.7912	0.947	No
	x^6	0.7428	0.947	No
MW-5 (bg) (n = 62 - Shapiro-Francia used, alpha = 0.01)				
	no	0.8068	0.947	No
	square root	0.8533	0.947	No
	square	0.7104	0.947	No
	cube root	0.8675	0.947	No
	cube	0.6248	0.947	No
	natural log	0.8927	0.947	No
	x^4	0.5551	0.947	No
	x^5	0.4991	0.947	No
	x^6	0.4531	0.947	No
Pooled Background (bg) (n = 182: Chi-Squared used, alpha = 0.05)				
	no	28.33	14.07	No
	square root	22.07	14.07	No
	square	74.59	14.07	No
	cube root	11.08	14.07	Yes
	cube	236.7	14.07	No
	natural log	70.64	14.07	No
	x^4	275.6	14.07	No
	x^5	248.9	14.07	No
	x^6	639.8	14.07	No

Shapiro-Wilk Normality Test

Constituent: Iron Analysis Run 6/23/2026 2:16 PM View: 2026AWQR-Normality
 ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Well	Transformation	Calculated	Critical	Normal
MW-3 (bg) (n = 12, alpha = 0.01)				
	no	0.7838	0.805	No
	square root	0.8804	0.805	Yes
	square	0.589	0.805	No
	cube root	0.9068	0.805	Yes
	cube	0.4613	0.805	No
	natural log	0.9452	0.805	Yes
	x^4	0.394	0.805	No
	x^5	0.3605	0.805	No
	x^6	0.3438	0.805	No
MW-4 (bg) (n = 12, alpha = 0.01)				
	no	0.5798	0.805	No
	square root	0.7776	0.805	No
	square	0.3872	0.805	No
	cube root	0.8454	0.805	Yes
	cube	0.3408	0.805	No
	natural log	0.9455	0.805	Yes
	x^4	0.3302	0.805	No
	x^5	0.3278	0.805	No
	x^6	0.3272	0.805	No
MW-5 (bg) (n = 12, alpha = 0.01)				
	no	0.512	0.805	No
	square root	0.7337	0.805	No
	square	0.362	0.805	No
	cube root	0.8265	0.805	Yes
	cube	0.3343	0.805	No
	natural log	0.9625	0.805	Yes
	x^4	0.3286	0.805	No
	x^5	0.3274	0.805	No
	x^6	0.3271	0.805	No
Pooled Background (bg) (n = 36, alpha = 0.01)				
	no	0.4794	0.912	No
	square root	0.7798	0.912	No
	square	0.2307	0.912	No
	cube root	0.8742	0.912	No
	cube	0.1837	0.912	No
	natural log	0.9753	0.912	Yes
	x^4	0.1735	0.912	No
	x^5	0.171	0.912	No
	x^6	0.1704	0.912	No

Shapiro-Wilk Normality Test

Constituent: Nitrogen, Ammonia Analysis Run 6/23/2026 2:16 PM View: 2026AWQR-Normality
 ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Well	Transformation	Calculated	Critical	Normal
MW-3 (bg) (n = 58 - Shapiro-Francia used, alpha = 0.01)				
	no	0.6671	0.944	No
	square root	0.7038	0.944	No
	square	0.5573	0.944	No
	cube root	0.7126	0.944	No
	cube	0.4324	0.944	No
	natural log	0.725	0.944	No
	x^4	0.3243	0.944	No
	x^5	0.245	0.944	No
	x^6	0.1918	0.944	No
MW-4 (bg) (n = 62 - Shapiro-Francia used, alpha = 0.01)				
	no	0.4776	0.947	No
	square root	0.5504	0.947	No
	square	0.3168	0.947	No
	cube root	0.5699	0.947	No
	cube	0.2091	0.947	No
	natural log	0.6007	0.947	No
	x^4	0.1551	0.947	No
	x^5	0.1285	0.947	No
	x^6	0.1141	0.947	No
MW-5 (bg) (n = 62 - Shapiro-Francia used, alpha = 0.01)				
	no	0.8883	0.947	No
	square root	0.8748	0.947	No
	square	0.855	0.947	No
	cube root	0.8668	0.947	No
	cube	0.749	0.947	No
	natural log	0.8475	0.947	No
	x^4	0.6141	0.947	No
	x^5	0.4875	0.947	No
	x^6	0.3843	0.947	No
Pooled Background (bg) (n = 182: Chi-Squared used, alpha = 0.05)				
	no	465.9	14.07	No
	square root	462.4	14.07	No
	square	565	14.07	No
	cube root	464.9	14.07	No
	cube	610.6	14.07	No
	natural log	470.4	14.07	No
	x^4	1234	14.07	No
	x^5	1354	14.07	No
	x^6	1408	14.07	No

Shapiro-Wilk Normality Test

Constituent: pH Analysis Run 6/23/2026 2:16 PM View: 2026AWQR-Normality
 ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Well	Transformation	Calculated	Critical	Normal
MW-3 (bg) (n = 56 - Shapiro-Francia used, alpha = 0.01)				
	no	0.9055	0.942	No
	square root	0.9168	0.942	No
	square	0.88	0.942	No
	cube root	0.9204	0.942	No
	cube	0.8505	0.942	No
	natural log	0.9271	0.942	No
	x^4	0.8177	0.942	No
	x^5	0.7818	0.942	No
	x^6	0.7436	0.942	No
MW-4 (bg) (n = 59 - Shapiro-Francia used, alpha = 0.01)				
	no	0.8961	0.945	No
	square root	0.9087	0.945	No
	square	0.8677	0.945	No
	cube root	0.9126	0.945	No
	cube	0.835	0.945	No
	natural log	0.9201	0.945	No
	x^4	0.7985	0.945	No
	x^5	0.7586	0.945	No
	x^6	0.7161	0.945	No
MW-5 (bg) (n = 59 - Shapiro-Francia used, alpha = 0.01)				
	no	0.9328	0.945	No
	square root	0.9416	0.945	No
	square	0.9112	0.945	No
	cube root	0.9442	0.945	No
	cube	0.8843	0.945	No
	natural log	0.949	0.945	Yes
	x^4	0.8527	0.945	No
	x^5	0.8168	0.945	No
	x^6	0.7772	0.945	No
Pooled Background (bg) (n = 174: Chi-Squared used, alpha = 0.05)				
	no	12.32	14.07	Yes
	square root	12.32	14.07	Yes
	square	16.34	14.07	No
	cube root	10.14	14.07	Yes
	cube	26.46	14.07	No
	natural log	10.37	14.07	Yes
	x^4	24.74	14.07	No
	x^5	39.33	14.07	No
	x^6	47.61	14.07	No

Shapiro-Wilk Normality Test

Constituent: Specific Conductance Analysis Run 6/23/2026 2:16 PM View: 2026AWQR-Normality
 ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Well	Transformation	Calculated	Critical	Normal
MW-3 (bg) (n = 56 - Shapiro-Francia used, alpha = 0.01)				
	no	0.9088	0.942	No
	square root	0.939	0.942	No
	square	0.7854	0.942	No
	cube root	0.9434	0.942	Yes
	cube	0.619	0.942	No
	natural log	0.9438	0.942	Yes
	x^4	0.4605	0.942	No
	x^5	0.3374	0.942	No
	x^6	0.2524	0.942	No
MW-4 (bg) (n = 59 - Shapiro-Francia used, alpha = 0.01)				
	no	0.9738	0.945	Yes
	square root	0.9621	0.945	Yes
	square	0.9552	0.945	Yes
	cube root	0.955	0.945	Yes
	cube	0.8885	0.945	No
	natural log	0.936	0.945	No
	x^4	0.7872	0.945	No
	x^5	0.6683	0.945	No
	x^6	0.5493	0.945	No
MW-5 (bg) (n = 59 - Shapiro-Francia used, alpha = 0.01)				
	no	0.8521	0.945	No
	square root	0.9003	0.945	No
	square	0.704	0.945	No
	cube root	0.9115	0.945	No
	cube	0.5331	0.945	No
	natural log	0.9266	0.945	No
	x^4	0.3875	0.945	No
	x^5	0.2836	0.945	No
	x^6	0.2156	0.945	No
Pooled Background (bg) (n = 174: Chi-Squared used, alpha = 0.05)				
	no	14.85	14.07	No
	square root	16.46	14.07	No
	square	25.89	14.07	No
	cube root	16.23	14.07	No
	cube	74.05	14.07	No
	natural log	14.05	14.07	Yes
	x^4	185.3	14.07	No
	x^5	304.5	14.07	No
	x^6	386.8	14.07	No

Shapiro-Wilk Normality Test

Constituent: Total Organic Halogens Analysis Run 6/23/2026 2:16 PM View: 2026AWQR-Normality
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Well	Transformation	Calculated	Critical	Normal
MW-3 (bg) (n = 29, alpha = 0.01)				
	no	0.7509	0.898	No
	square root	0.8825	0.898	No
	square	0.5405	0.898	No
	cube root	0.9166	0.898	Yes
	cube	0.4173	0.898	No
	natural log	0.945	0.898	Yes
	x^4	0.3383	0.898	No
	x^5	0.2865	0.898	No
	x^6	0.253	0.898	No
MW-4 (bg) (n = 37, alpha = 0.01)				
	no	0.6344	0.914	No
	square root	0.8523	0.914	No
	square	0.277	0.914	No
	cube root	0.8795	0.914	No
	cube	0.1927	0.914	No
	natural log	0.8696	0.914	No
	x^4	0.1739	0.914	No
	x^5	0.1693	0.914	No
	x^6	0.1682	0.914	No
MW-5 (bg) (n = 34, alpha = 0.01)				
	no	0.6838	0.908	No
	square root	0.8244	0.908	No
	square	0.3835	0.908	No
	cube root	0.8465	0.908	No
	cube	0.2555	0.908	No
	natural log	0.8502	0.908	No
	x^4	0.2084	0.908	No
	x^5	0.1898	0.908	No
	x^6	0.1818	0.908	No
Pooled Background (bg) (n = 100: Chi-Squared used, alpha = 0.05)				
	no	115.2	14.07	No
	square root	74.4	14.07	No
	square	555.4	14.07	No
	cube root	57.6	14.07	No
	cube	768.6	14.07	No
	natural log	61.4	14.07	No
	x^4	880.2	14.07	No
	x^5	880.2	14.07	No
	x^6	880.2	14.07	No

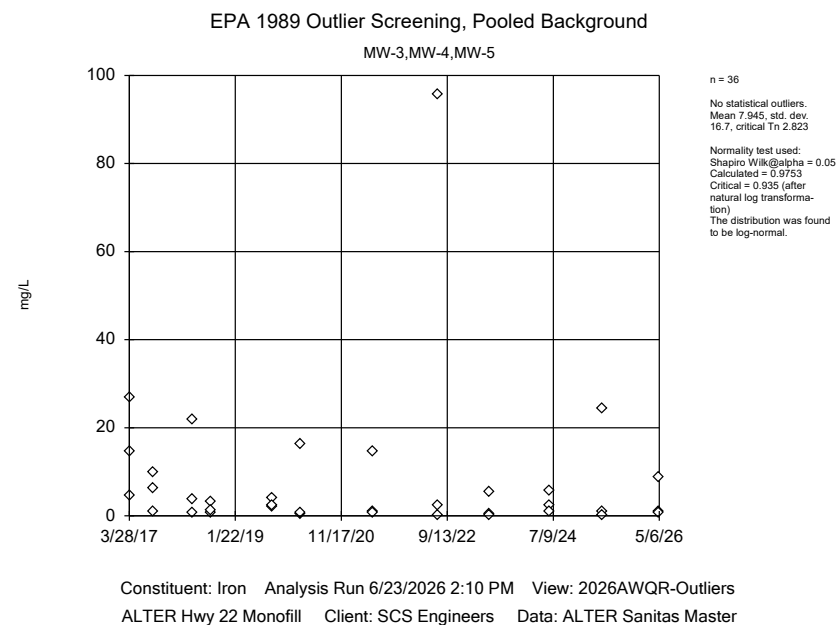
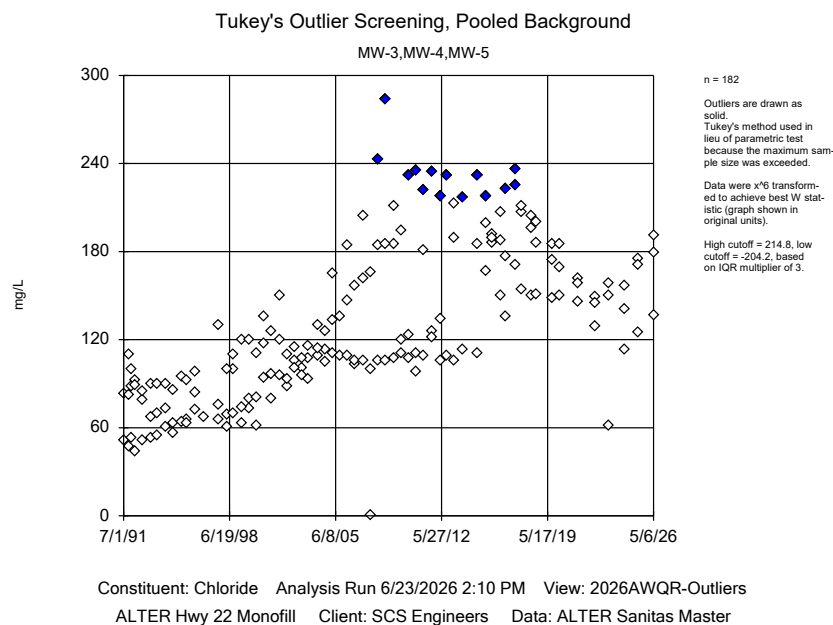
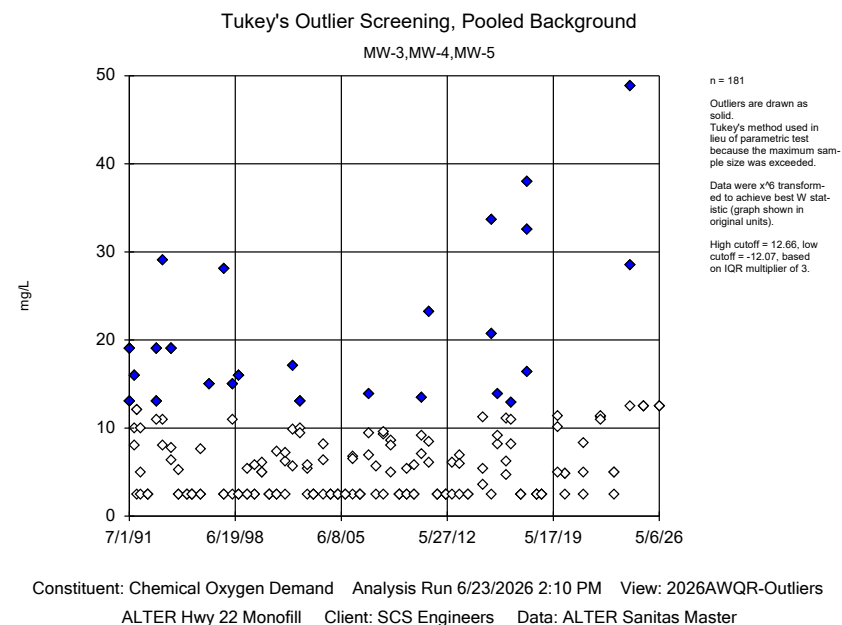
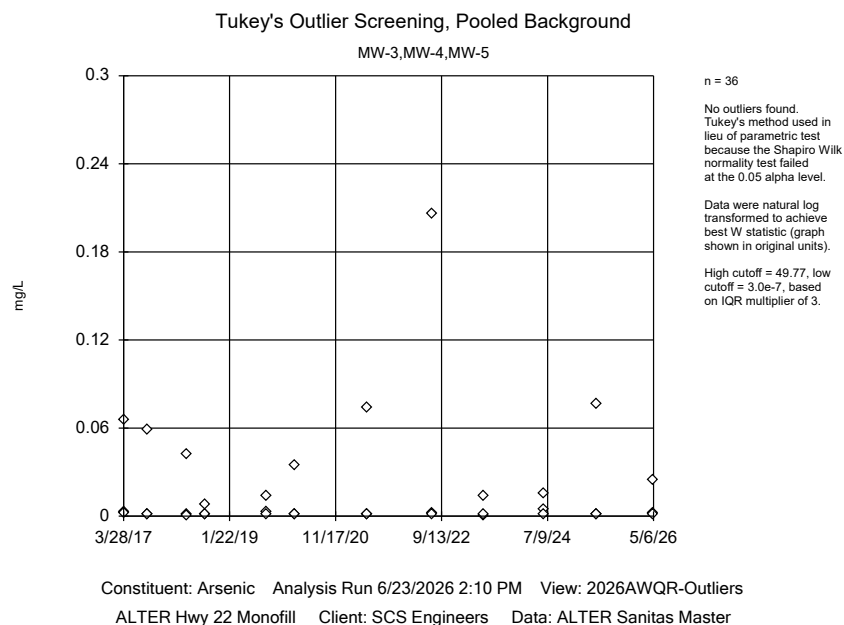
Attachment C

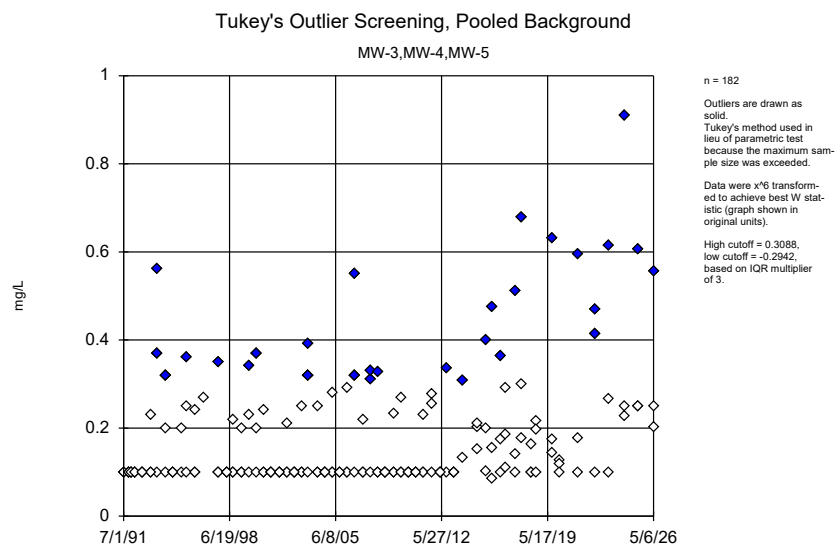
Outliers

BG Outlier Analysis

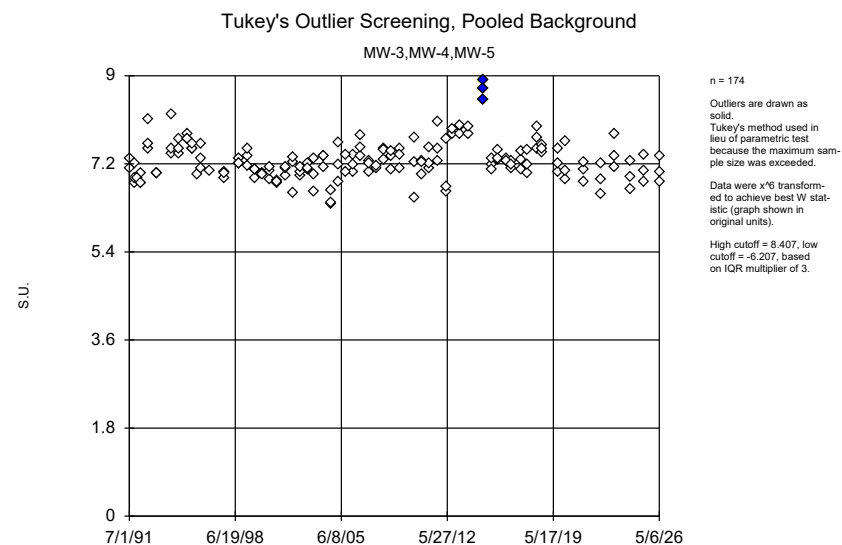
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master Printed 6/23/2026, 2:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Normality Test</u>
Arsenic (mg/L)	MW-3,MW-4,MW-5	No	n/a	n/a w/combined bg	NP (nrm)	36	0.01855	0.03907	ShapiroWilk
Chemical Oxygen Demand (mg/L)	MW-3,MW-4,MW-5	Yes	13,13,13,29,19,15,15,13.8,13.4,33.7,12.9,16.3,28,	n/a w/combined bg	NP (n)	181	7.462	7.167	ChiSquared
Chloride (mg/L)	MW-3,MW-4,MW-5	Yes	243,284,232,232,232,218,218,235,222,234,217,225,2	n/a w/combined bg	NP (n)	182	129.7	52.39	ChiSquared
Iron (mg/L)	MW-3,MW-4,MW-5	No	n/a	n/a w/combined bg	EPA 1989	36	7.945	16.7	ShapiroWilk
Nitrogen, Ammonia (mg/L)	MW-3,MW-4,MW-5	Yes	0.32,0.32,0.32,0.36,0.39,0.55,0.31,0.511,0.677,0.	n/a w/combined bg	NP (n)	182	0.1871	0.14	ChiSquared
pH (S.U.)	MW-3,MW-4,MW-5	Yes	8.51,8.73,8.91	n/a w/combined bg	NP (n)	174	7.259	0.3891	ChiSquared
Specific Conductance (umhos/cm)	MW-3,MW-4,MW-5	Yes	2250,1620,1650,1940,2050	n/a w/combined bg	NP (n)	174	1154	255.1	ChiSquared
Total Organic Halogens (mg/L)	MW-3,MW-4,MW-5	Yes	0.1,0.1,0.147,0.0969,0.0918,0.09,0.11,0.12,0.13,0	n/a w/combined bg	NP (nrm)	100	0.04506	0.07018	ChiSquared

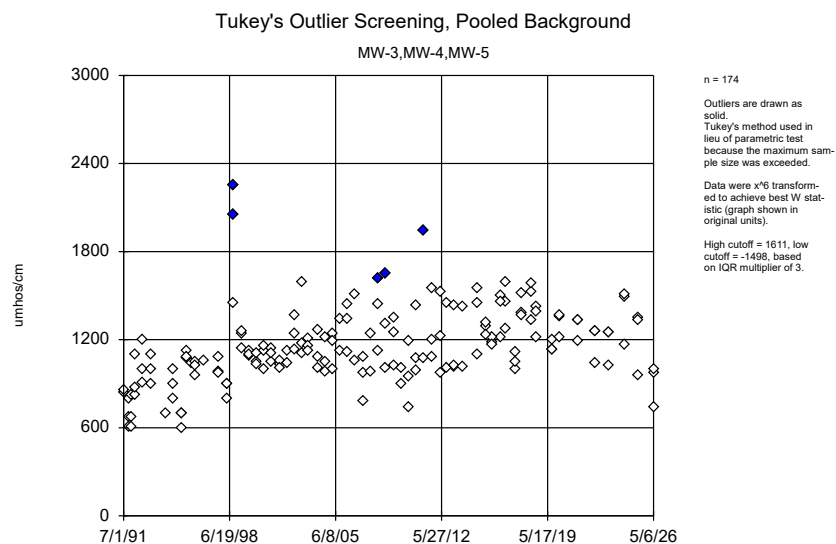




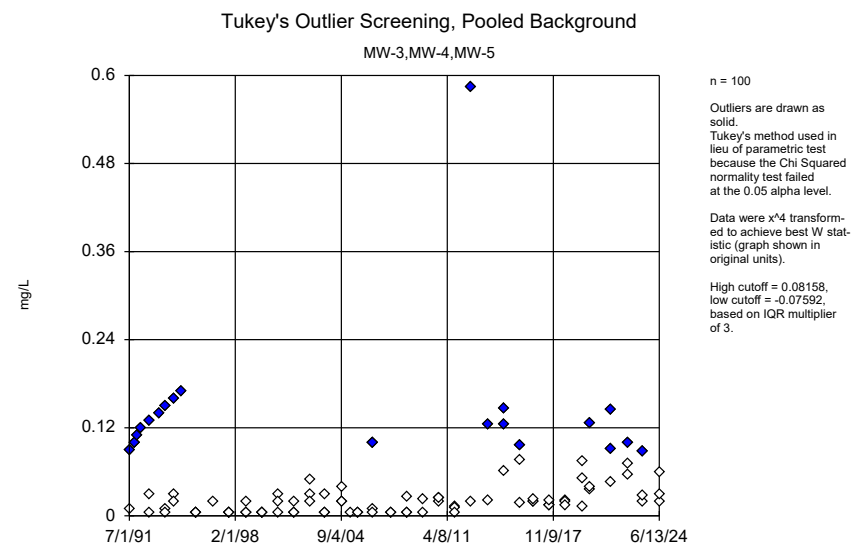
Constituent: Nitrogen, Ammonia Analysis Run 6/23/2026 2:10 PM View: 2026AWQR-Outliers
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master



Constituent: pH Analysis Run 6/23/2026 2:10 PM View: 2026AWQR-Outliers
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master



Constituent: Specific Conductance Analysis Run 6/23/2026 2:10 PM View: 2026AWQR-Outliers
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master



Constituent: Total Organic Halogens Analysis Run 6/23/2026 2:10 PM View: 2026AWQR-Outliers
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Attachment D

Prediction Limits

Prediction Limit

ALTER Hwy 22 Monofill

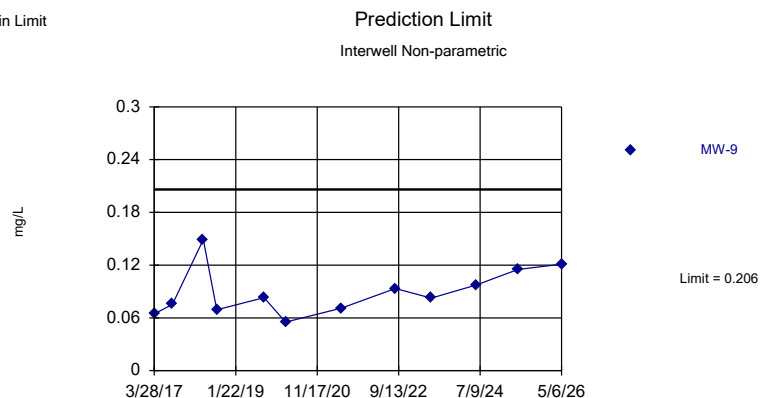
Client: SCS Engineers

Data: ALTER Sanitas Master

Printed 6/23/2026, 2:30 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Wells</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-9	0.206	n/a	5/6/2026	0.121	No	36	MW-3,MW-5,MW-4	33.33	n/a	n/a	0.026	NP Inter (normality)
Chemical Oxygen Demand (mg/L)	MW-7R	48.8	n/a	5/6/2026	66.6	Yes	181	MW-4,MW-5,MW-3	49.17	n/a	n/a	0.00545	NP Inter (normality)
Chemical Oxygen Demand (mg/L)	MW-9	48.8	n/a	5/6/2026	877	Yes	181	MW-4,MW-5,MW-3	49.17	n/a	n/a	0.00545	NP Inter (normality)
Chemical Oxygen Demand (mg/L)	MW-23	48.8	n/a	5/6/2026	50.3	Yes	181	MW-4,MW-5,MW-3	49.17	n/a	n/a	0.00545	NP Inter (normality)
Chloride (mg/L)	MW-7R	295.9	n/a	5/6/2026	25.7	No	182	MW-3,MW-4,MW-5	0.5495	None	x^(1/3)	0.0125	Param Inter
Chloride (mg/L)	MW-8R	295.9	n/a	5/6/2026	196	No	182	MW-3,MW-4,MW-5	0.5495	None	x^(1/3)	0.0125	Param Inter
Chloride (mg/L)	MW-9	295.9	n/a	5/6/2026	723	Yes	182	MW-3,MW-4,MW-5	0.5495	None	x^(1/3)	0.0125	Param Inter
Chloride (mg/L)	MW-23	295.9	n/a	5/6/2026	42.8	No	182	MW-3,MW-4,MW-5	0.5495	None	x^(1/3)	0.0125	Param Inter
Iron (mg/L)	MW-7R	103	n/a	5/6/2026	0.8625	No	36	MW-3,MW-4,MW-5	2.778	None	ln(x)	0.0125	Param Inter
Iron (mg/L)	MW-8R	103	n/a	5/6/2026	0.317	No	36	MW-3,MW-4,MW-5	2.778	None	ln(x)	0.0125	Param Inter
Iron (mg/L)	MW-9	103	n/a	5/6/2026	27.7	No	36	MW-3,MW-4,MW-5	2.778	None	ln(x)	0.0125	Param Inter
Iron (mg/L)	MW-23	103	n/a	5/6/2026	30.4	No	36	MW-3,MW-4,MW-5	2.778	None	ln(x)	0.0125	Param Inter
Nitrogen, Ammonia (mg/L)	MW-9	0.909	n/a	5/6/2026	2.44	Yes	182	MW-3,MW-4,MW-5	57.69	n/a	n/a	0.00542	NP Inter (NDs)
Nitrogen, Ammonia (mg/L)	MW-23	0.909	n/a	5/6/2026	2.59	Yes	182	MW-3,MW-4,MW-5	57.69	n/a	n/a	0.00542	NP Inter (NDs)
pH (S.U.)	MW-7R	8.244	6.274	5/6/2026	7.13	No	174	MW-3,MW-4,MW-5	0	None	No	0.00625	Param Inter
pH (S.U.)	MW-8R	8.244	6.274	5/6/2026	6.75	No	174	MW-3,MW-4,MW-5	0	None	No	0.00625	Param Inter
pH (S.U.)	MW-9	8.244	6.274	5/6/2026	6.9	No	174	MW-3,MW-4,MW-5	0	None	No	0.00625	Param Inter
pH (S.U.)	MW-23	8.244	6.274	5/6/2026	6.45	No	174	MW-3,MW-4,MW-5	0	None	No	0.00625	Param Inter
Specific Conductance (umhos/cm)	MW-7R	1861	n/a	5/6/2026	1254	No	174	MW-3,MW-4,MW-5	0	None	ln(x)	0.0125	Param Inter
Specific Conductance (umhos/cm)	MW-8R	1861	n/a	5/6/2026	1145	No	174	MW-3,MW-4,MW-5	0	None	ln(x)	0.0125	Param Inter
Specific Conductance (umhos/cm)	MW-9	1861	n/a	5/6/2026	4040	Yes	174	MW-3,MW-4,MW-5	0	None	ln(x)	0.0125	Param Inter
Specific Conductance (umhos/cm)	MW-23	1861	n/a	5/6/2026	1113	No	174	MW-3,MW-4,MW-5	0	None	ln(x)	0.0125	Param Inter

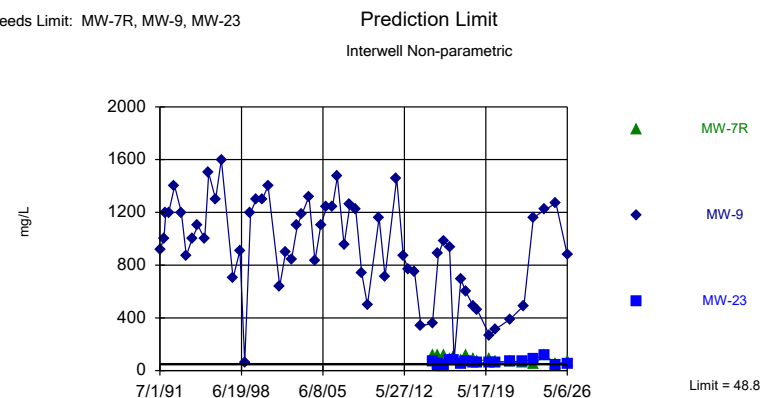
Within Limit



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 36 background values. 33.33% NDs. Report alpha = 0.1. Individual comparison alpha = 0.026. Based on user-set k of 4 (assumes 3 future values).

Constituent: Arsenic Analysis Run 6/23/2026 2:25 PM View: 2026AWQR-Prediction_Limit
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

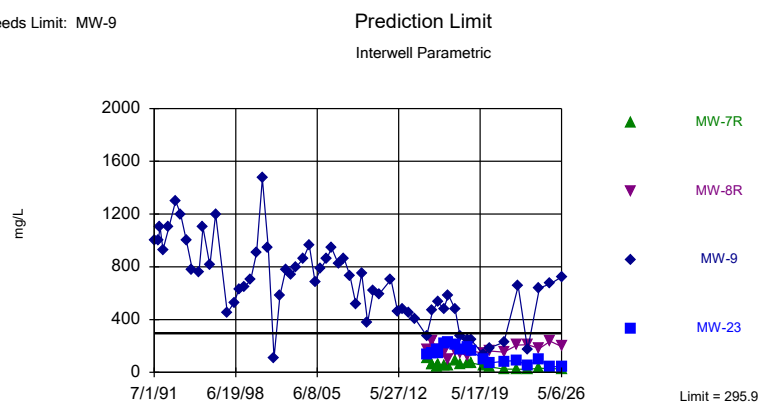
Exceeds Limit: MW-7R, MW-9, MW-23



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 181 background values. 49.17% NDs. Report alpha = 0.02162. Individual comparison alpha = 0.00545. Based on user-set k of 4 (assumes 1 future value).

Constituent: Chemical Oxygen Demand Analysis Run 6/23/2026 2:25 PM View: 2026AWQR-Prediction_Li
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

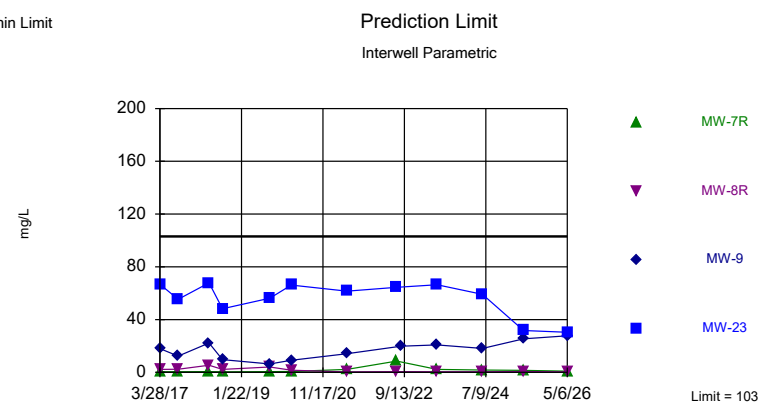
Exceeds Limit: MW-9



Background Data Summary (based on cube root transformation): Mean=4.957, Std. Dev.=0.7533, n=182, 0.5495% NDs. Normality test: Chi Squared @alpha = 0.05, calculated = 11.08, critical = 14.07. Report alpha = 0.05. Individual comparison alpha = 0.0125. Most recent point for each compliance well compared to limit.

Constituent: Chloride Analysis Run 6/23/2026 2:25 PM View: 2026AWQR-Prediction_Limit
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

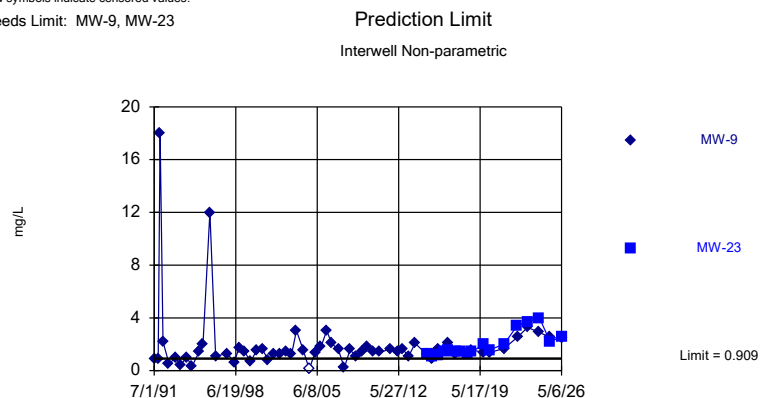
Within Limit



Background Data Summary (based on natural log transformation): Mean=0.8706, Std. Dev.=1.585, n=36, 2.778% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9753, critical = 0.935. Report alpha = 0.05. Individual comparison alpha = 0.0125. Most recent point for each compliance well compared to limit.

Constituent: Iron Analysis Run 6/23/2026 2:25 PM View: 2026AWQR-Prediction_Limit
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

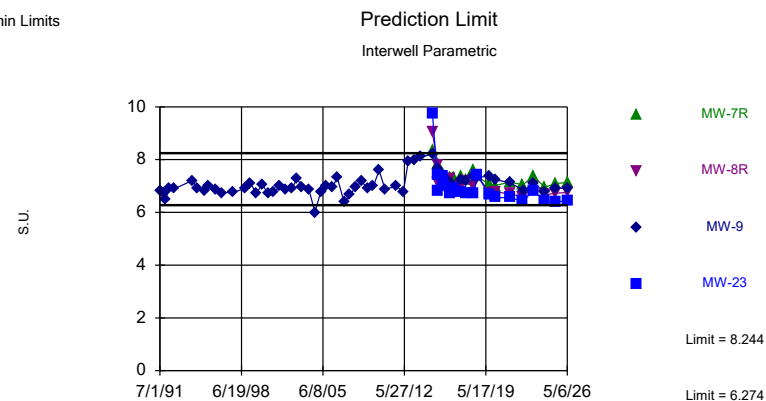
Exceeds Limit: MW-9, MW-23



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 182 background values. 57.69% NDs. Report alpha = 0.02151. Individual comparison alpha = 0.00542. Based on user-set k of 4 (assumes 2 future values).

Constituent: Nitrogen, Ammonia Analysis Run 6/23/2026 2:25 PM View: 2026AWQR-Prediction_Limit
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

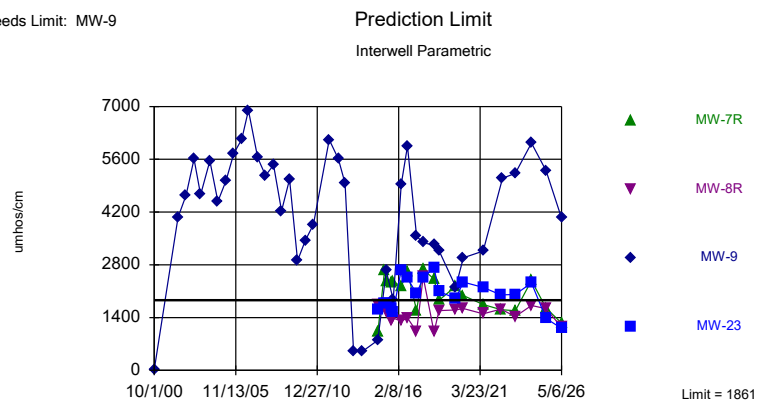
Within Limits



Background Data Summary: Mean=7.259, Std. Dev.=0.3891, n=174. Normality test: Chi Squared @alpha = 0.05, calculated = 12.32, critical = 14.07. Report alpha = 0.05. Individual comparison alpha = 0.00625. Most recent point for each compliance well compared to limit.

Constituent: pH Analysis Run 6/23/2026 2:25 PM View: 2026AWQR-Prediction_Limit
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Exceeds Limit: MW-9



Background Data Summary (based on natural log transformation): Mean=7.027, Std. Dev.=0.2214, n=174. Normality test: Chi Squared @alpha = 0.05, calculated = 14.05, critical = 14.07. Report alpha = 0.05. Individual comparison alpha = 0.0125. Most recent point for each compliance well compared to limit.

Constituent: Specific Conductance Analysis Run 6/23/2026 2:25 PM View: 2026AWQR-Prediction_Limit
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER Sanitas Master

Attachment E

Trend Test ($\alpha=0.01$)

Trend Test

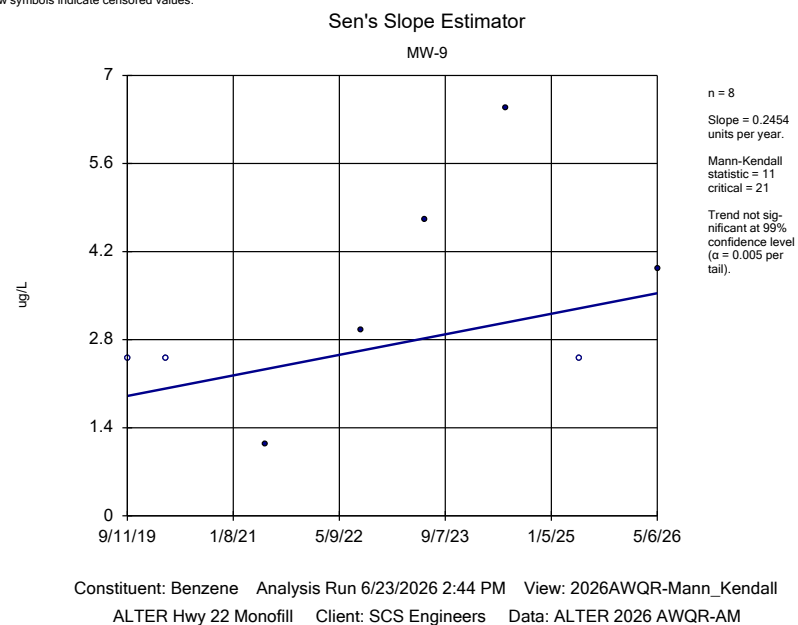
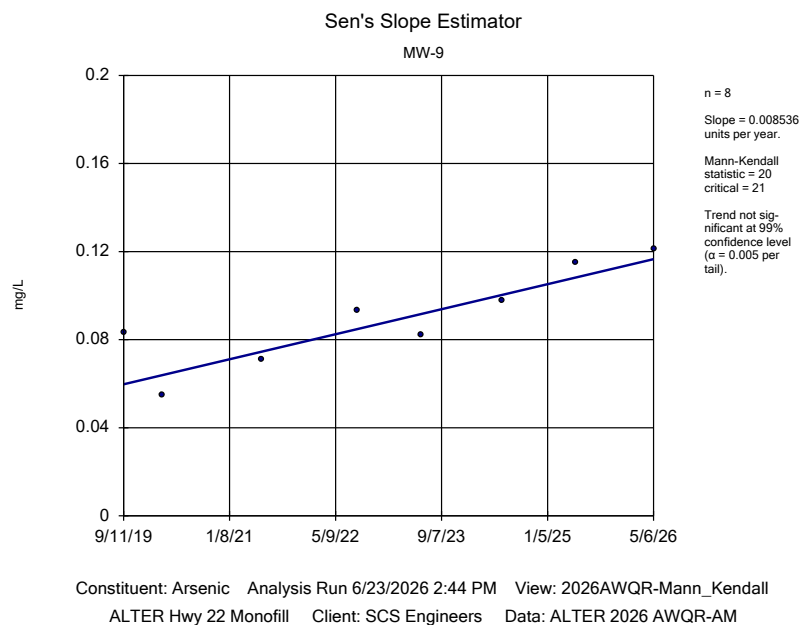
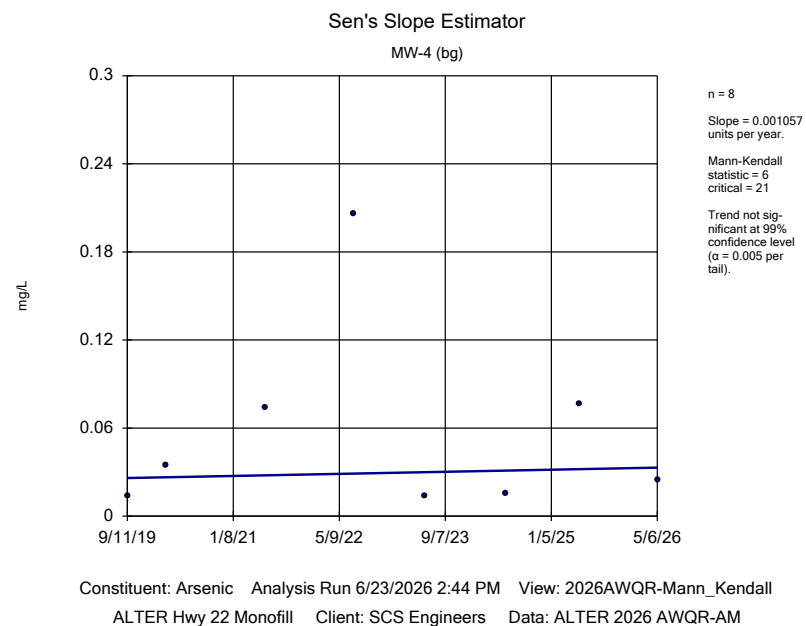
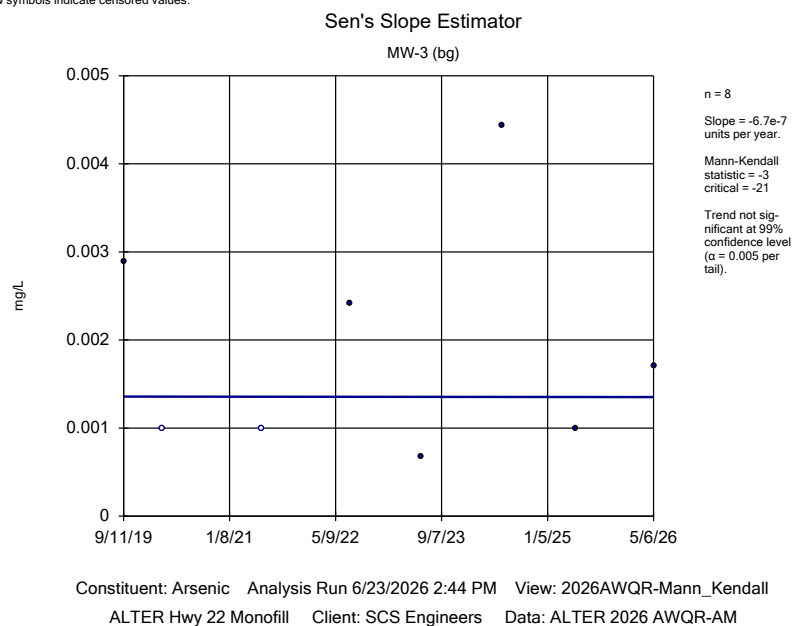
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER 2026 AWQR-AM Printed 6/23/2026, 2:48 PM

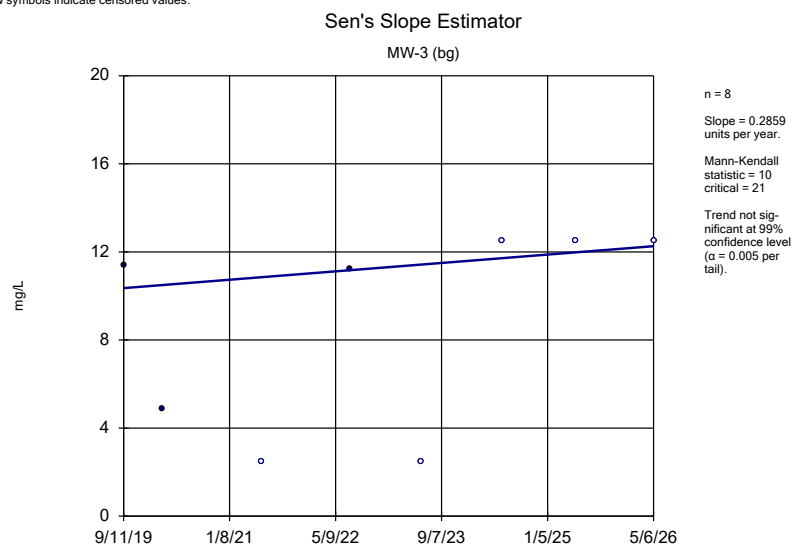
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Method</u>
Arsenic (mg/L)	MW-3 (bg)	-6.7e-7	-3	-21	No	8	25	NP
Arsenic (mg/L)	MW-4 (bg)	0.001057	6	21	No	8	0	NP
Arsenic (mg/L)	MW-9	0.008536	20	21	No	8	0	NP
Benzene (ug/L)	MW-9	0.2454	11	21	No	8	37.5	NP
Chemical Oxygen Demand (mg/L)	MW-3 (bg)	0.2859	10	21	No	8	62.5	NP
Chemical Oxygen Demand (mg/L)	MW-4 (bg)	0.6541	13	21	No	8	37.5	NP
Chemical Oxygen Demand (mg/L)	MW-5 (bg)	1.571	16	21	No	8	75	NP
Chemical Oxygen Demand (mg/L)	MW-7R	-3.084	-10	-21	No	8	0	NP
Chemical Oxygen Demand (mg/L)	MW-8R	-1.525	-11	-21	No	8	37.5	NP
Chemical Oxygen Demand (mg/L)	MW-9	96.64	22	21	Yes	8	0	NP
Chemical Oxygen Demand (mg/L)	MW-23	2.765	4	21	No	8	0	NP
Chloride (mg/L)	MW-3 (bg)	3.393	11	21	No	8	0	NP
Chloride (mg/L)	MW-4 (bg)	-0.1159	0	21	No	8	0	NP
Chloride (mg/L)	MW-5 (bg)	-9.461	-12	-21	No	8	0	NP
Chloride (mg/L)	MW-7R	-2.375	-8	-21	No	8	0	NP
Chloride (mg/L)	MW-8R	8.978	16	21	No	8	0	NP
Chloride (mg/L)	MW-9	91.14	20	21	No	8	0	NP
Chloride (mg/L)	MW-23	-5.626	-12	-21	No	8	0	NP
Iron (mg/L)	MW-3 (bg)	0.01924	2	21	No	8	0	NP
Iron (mg/L)	MW-4 (bg)	0.337	4	21	No	8	0	NP
Iron (mg/L)	MW-5 (bg)	-0.1323	-12	-21	No	8	12.5	NP
Iron (mg/L)	MW-7R	0.001407	0	21	No	8	0	NP
Iron (mg/L)	MW-8R	-0.1566	-12	-21	No	8	0	NP
Iron (mg/L)	MW-9	3.071	24	21	Yes	8	0	NP
Iron (mg/L)	MW-23	-3.265	-10	-21	No	8	0	NP
Nitrogen, Ammonia (mg/L)	MW-3 (bg)	0.005729	2	21	No	8	0	NP
Nitrogen, Ammonia (mg/L)	MW-4 (bg)	0.01737	8	21	No	8	12.5	NP
Nitrogen, Ammonia (mg/L)	MW-5 (bg)	0.01257	11	21	No	8	87.5	NP
Nitrogen, Ammonia (mg/L)	MW-7R	0.02342	15	21	No	8	75	NP
Nitrogen, Ammonia (mg/L)	MW-8R	0.02342	17	21	No	8	75	NP
Nitrogen, Ammonia (mg/L)	MW-9	0.1871	11	21	No	8	0	NP
Nitrogen, Ammonia (mg/L)	MW-23	0.2252	14	21	No	8	0	NP
pH (S.U.)	MW-3 (bg)	-0.02155	-10	-21	No	8	0	NP
pH (S.U.)	MW-4 (bg)	-0.01327	-7	-21	No	8	0	NP
pH (S.U.)	MW-5 (bg)	-0.02149	-2	-21	No	8	0	NP
pH (S.U.)	MW-7R	0.01087	4	21	No	8	0	NP
pH (S.U.)	MW-8R	-0.0001295	0	21	No	8	0	NP
pH (S.U.)	MW-9	-0.06868	-18	-21	No	8	0	NP
pH (S.U.)	MW-23	-0.03271	-12	-21	No	8	0	NP
Specific Conductance (umhos/cm)	MW-3 (bg)	-6.564	-2	-21	No	8	0	NP
Specific Conductance (umhos/cm)	MW-4 (bg)	-7.806	-2	-21	No	8	0	NP
Specific Conductance (umhos/cm)	MW-5 (bg)	-42.62	-18	-21	No	8	0	NP
Specific Conductance (umhos/cm)	MW-7R	-107	-14	-21	No	8	0	NP
Specific Conductance (umhos/cm)	MW-8R	-22.12	-4	-21	No	8	0	NP
Specific Conductance (umhos/cm)	MW-9	526.1	18	21	No	8	0	NP
Specific Conductance (umhos/cm)	MW-23	-115.6	-10	-21	No	8	0	NP
Total Organic Halogens (mg/L)	MW-3 (bg)	0.00118	6	21	No	8	12.5	NP
Total Organic Halogens (mg/L)	MW-4 (bg)	0.009215	12	21	No	8	12.5	NP
Total Organic Halogens (mg/L)	MW-5 (bg)	0.001207	4	21	No	8	0	NP
Total Organic Halogens (mg/L)	MW-7R	0.004278	4	21	No	8	0	NP

Trend Test

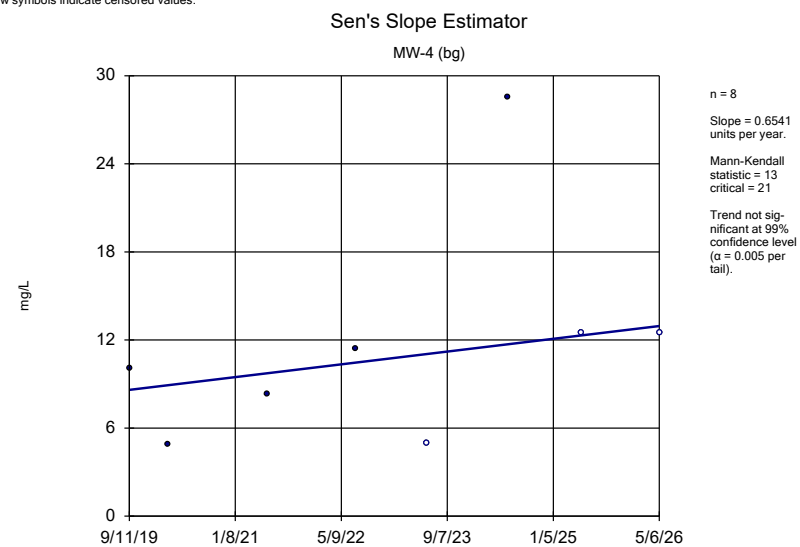
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER 2026 AWQR-AM Printed 6/23/2026, 2:48 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Method</u>
Total Organic Halogens (mg/L)	MW-8R	0.009782	8	21	No	8	0	NP
Total Organic Halogens (mg/L)	MW-9	0.2251	18	21	No	8	0	NP
Total Organic Halogens (mg/L)	MW-23	-0.01256	-2	-21	No	8	0	NP

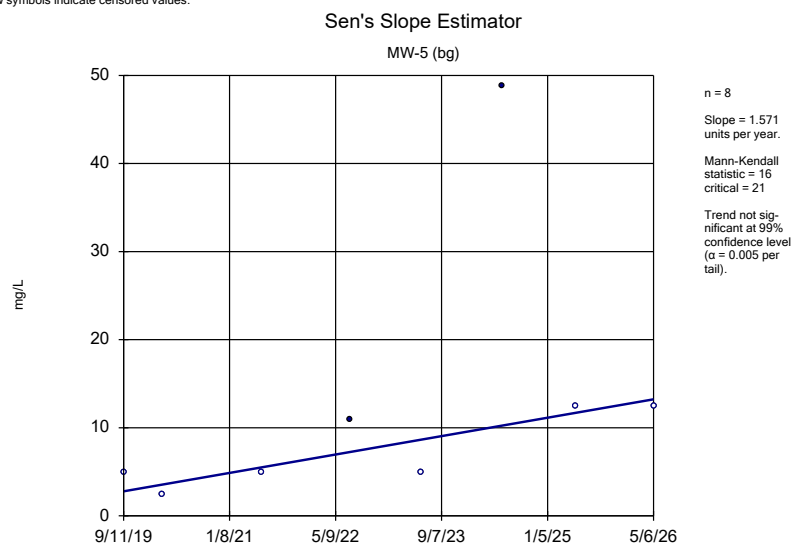




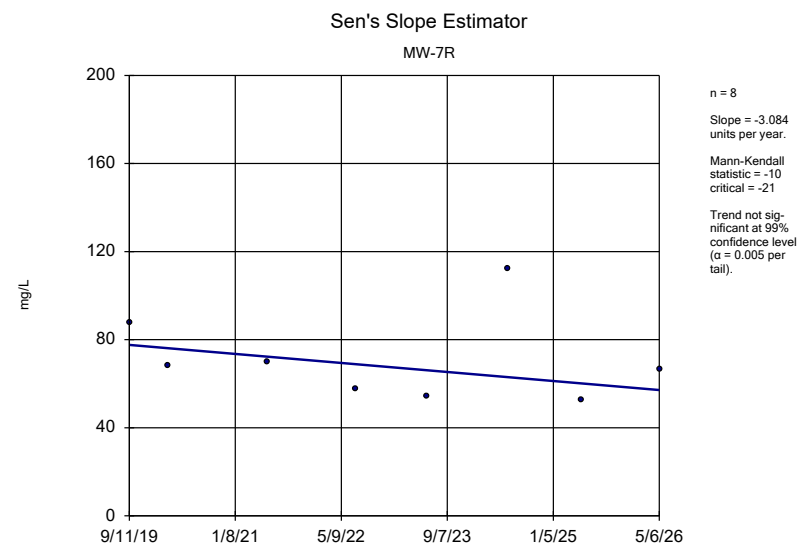
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ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER 2026 AWQR-AM



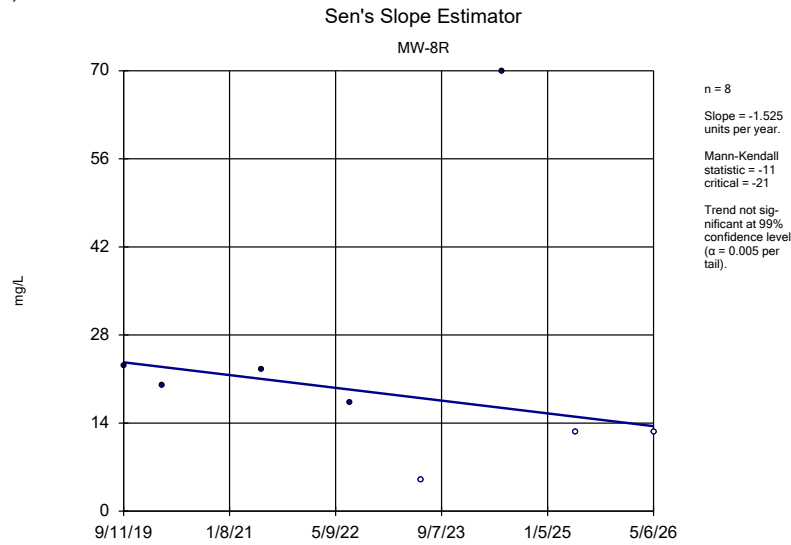
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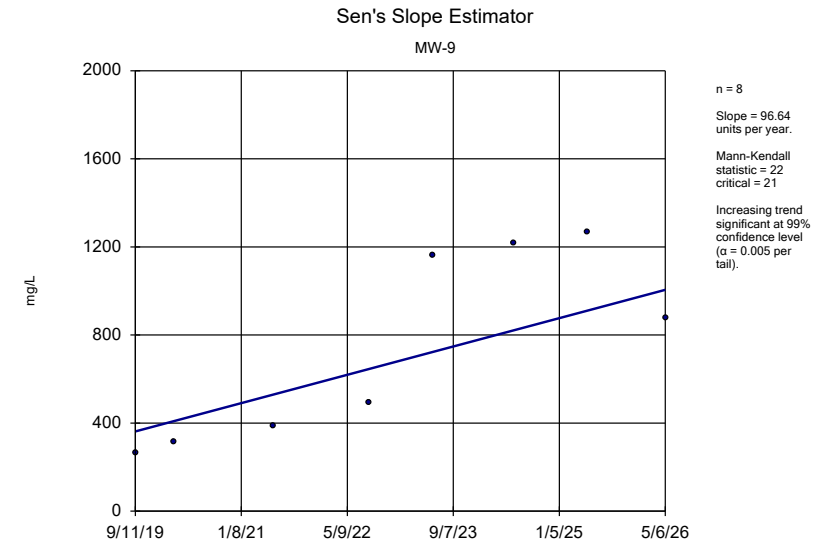
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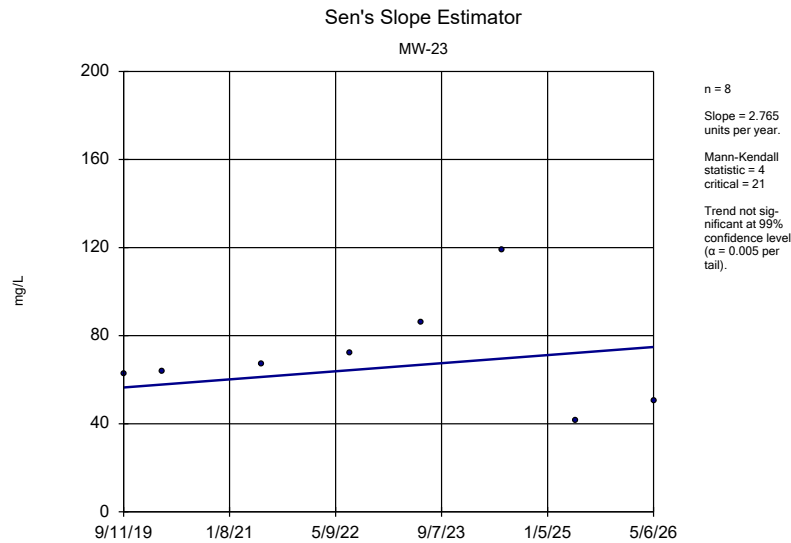
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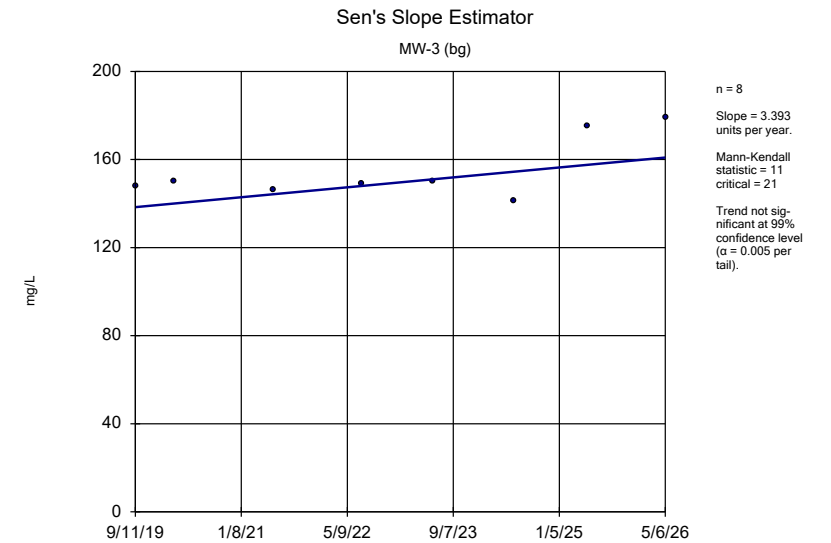
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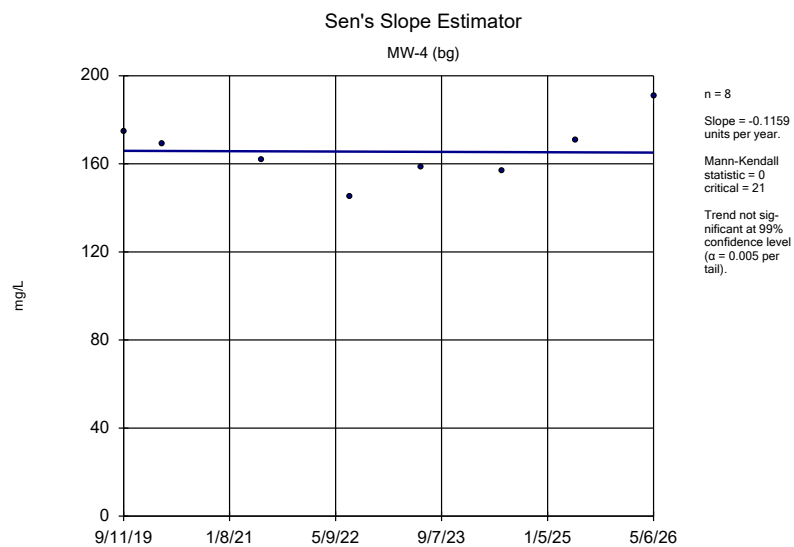
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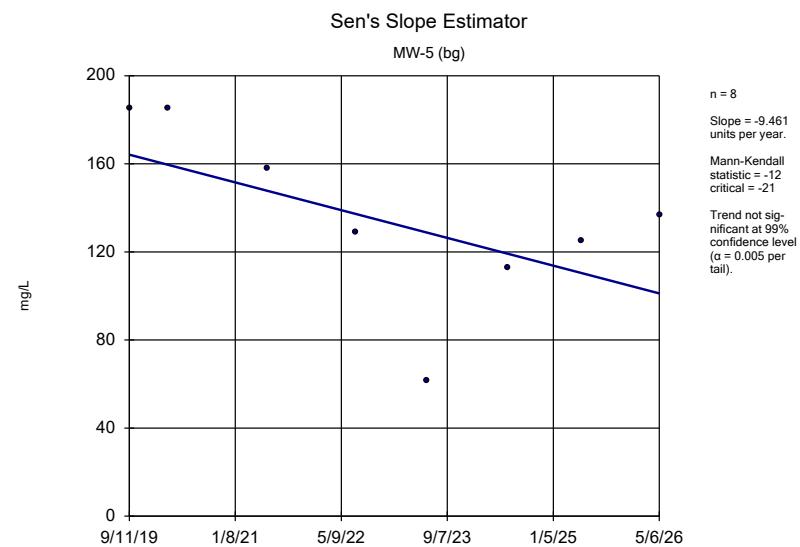
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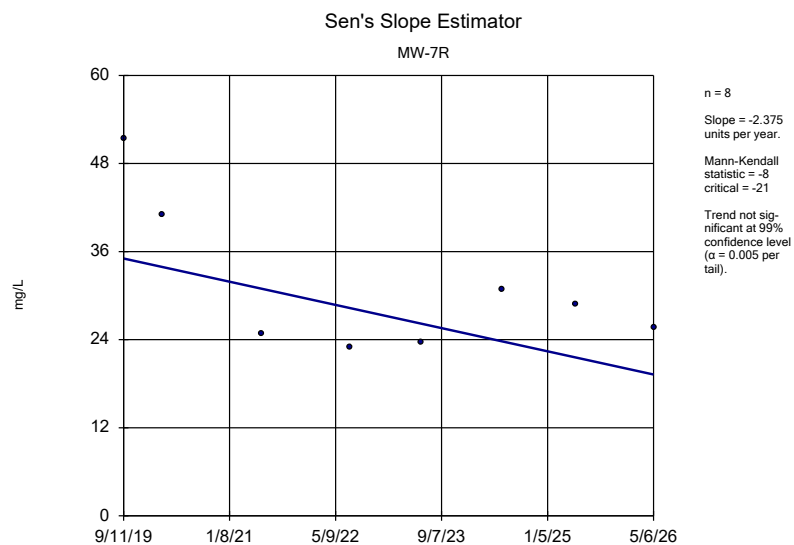
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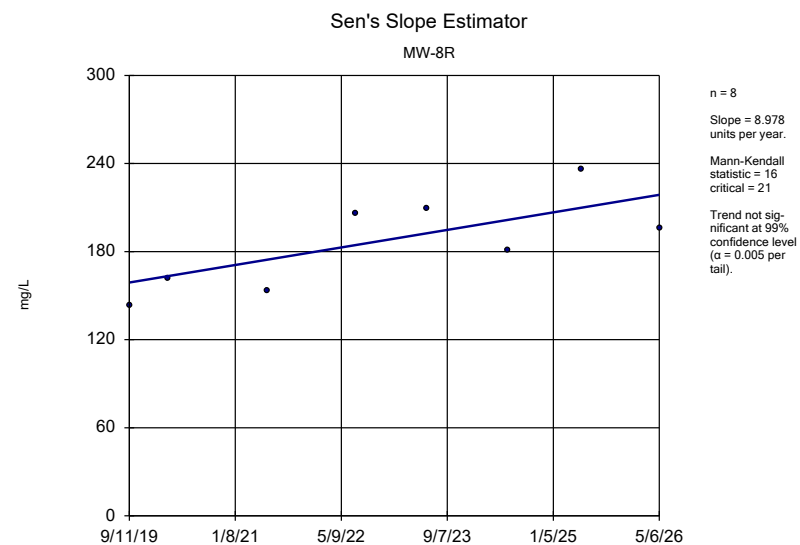
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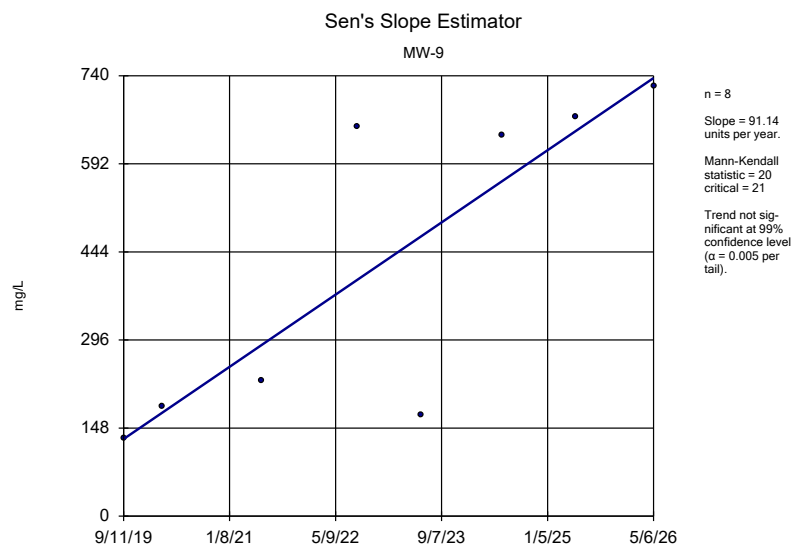
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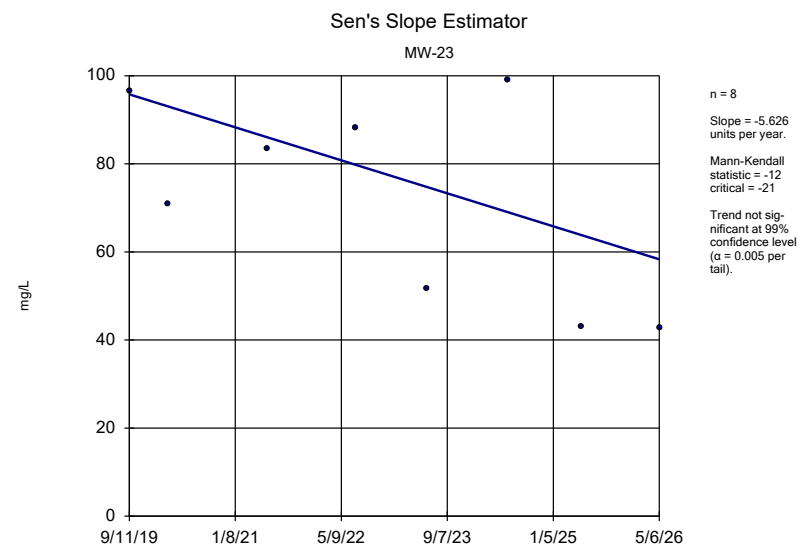
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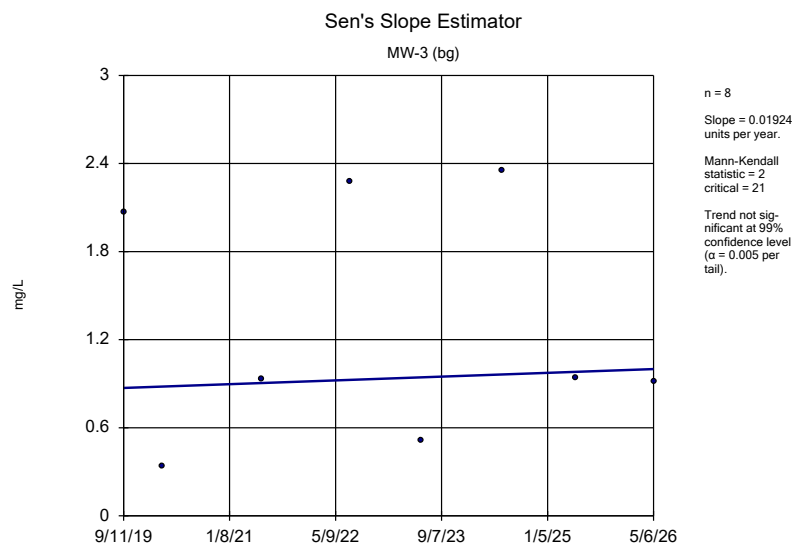
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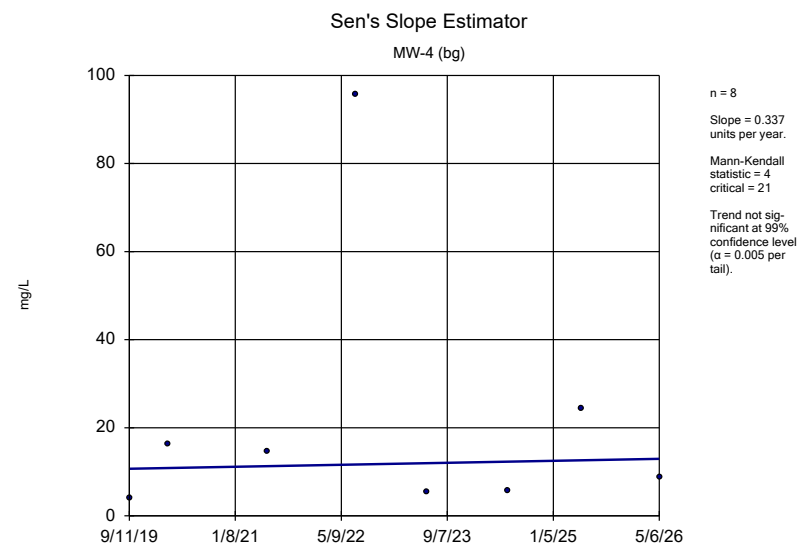
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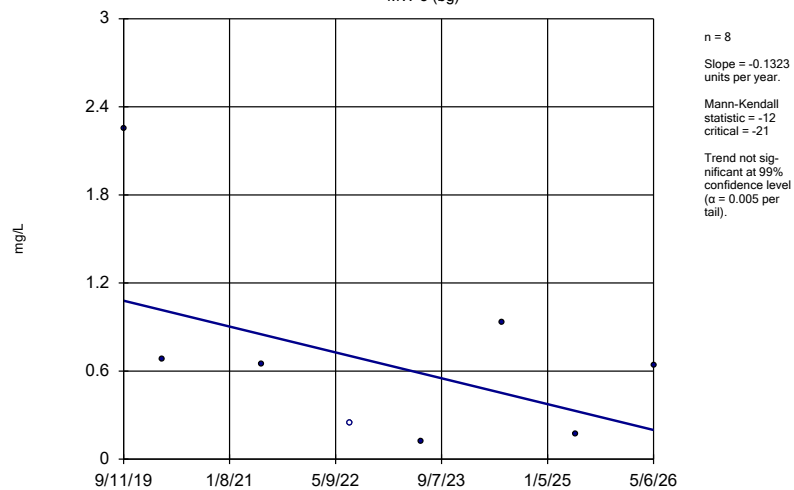
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Constituent: Iron Analysis Run 6/23/2026 2:44 PM View: 2026AWQR-Mann_Kendall
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Sen's Slope Estimator

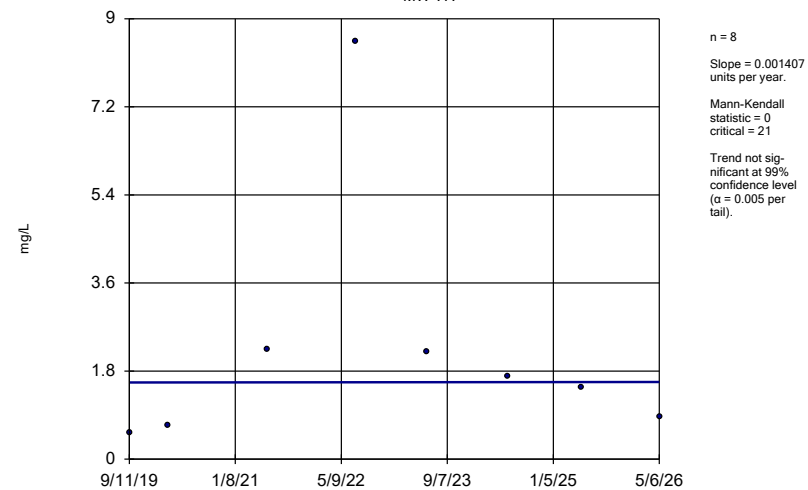
MW-5 (bg)



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Sen's Slope Estimator

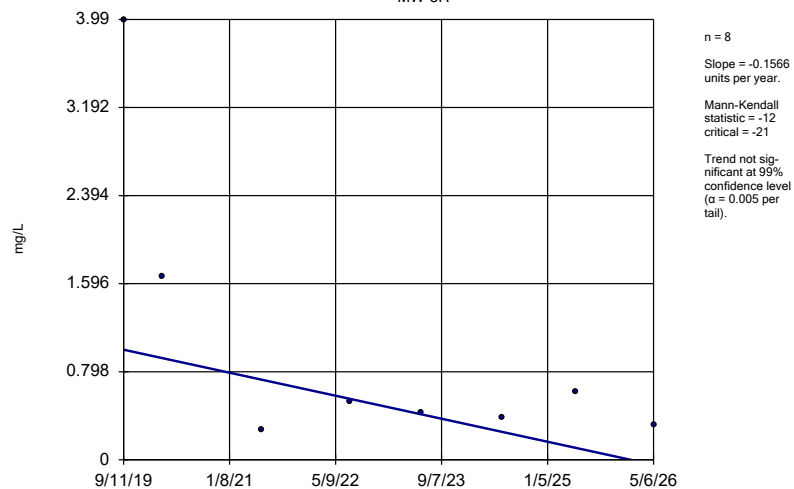
MW-7R



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Sen's Slope Estimator

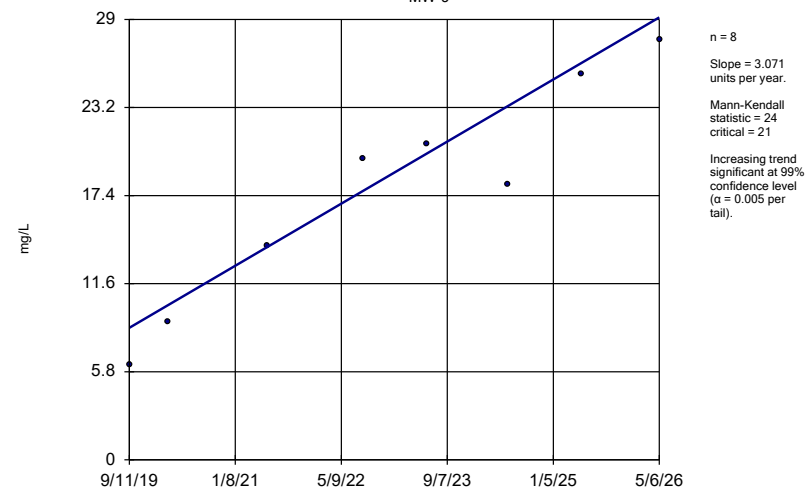
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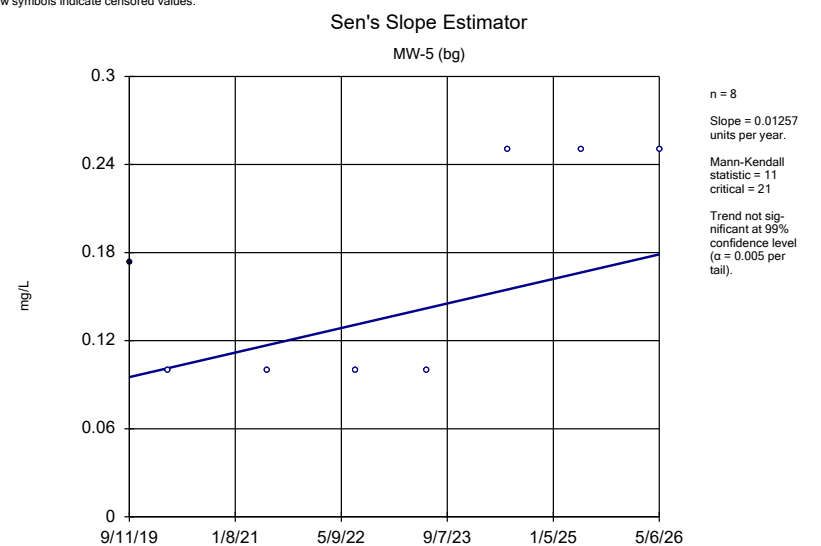
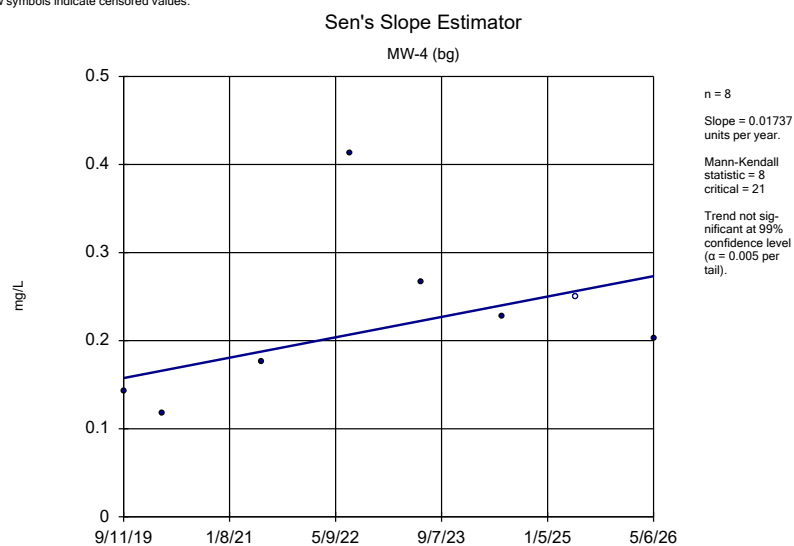
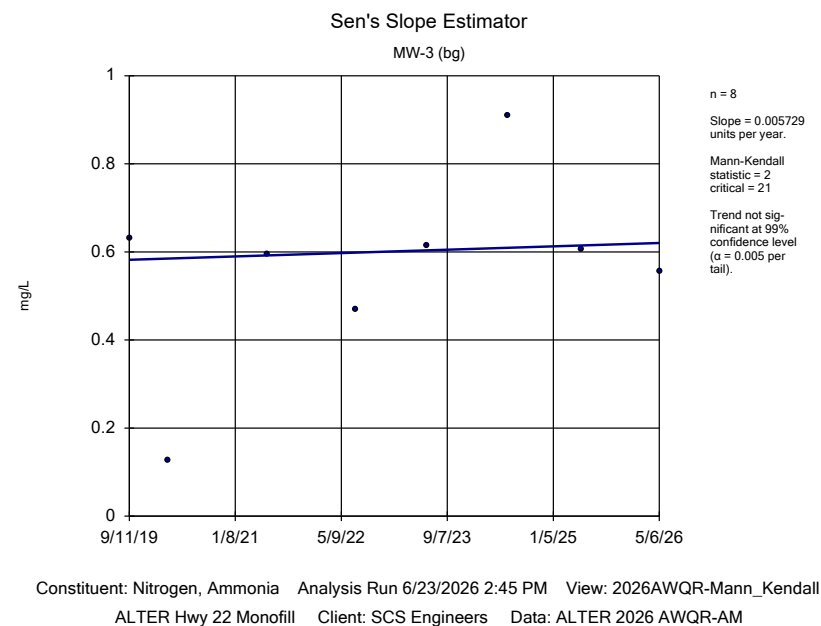
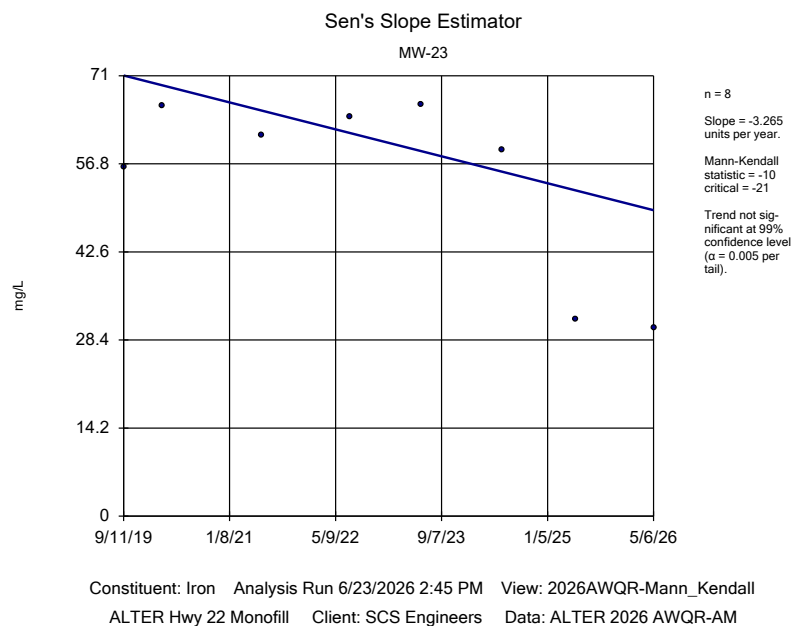
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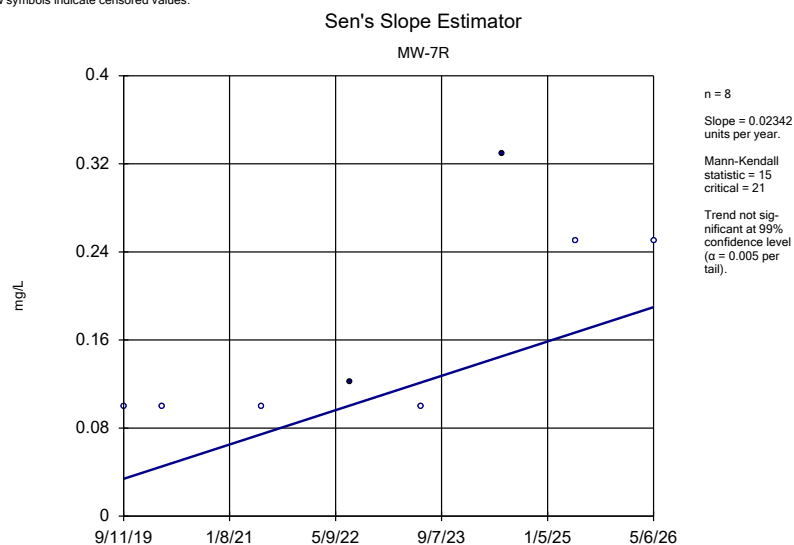
Sen's Slope Estimator

MW-9

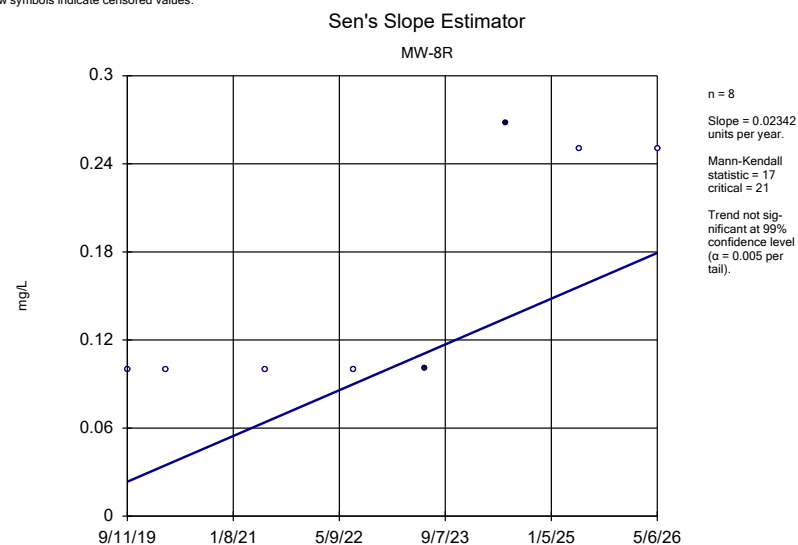


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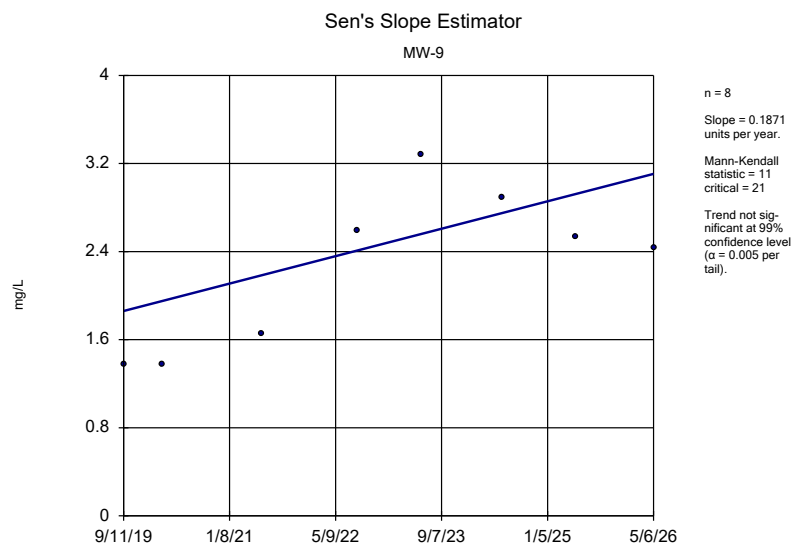




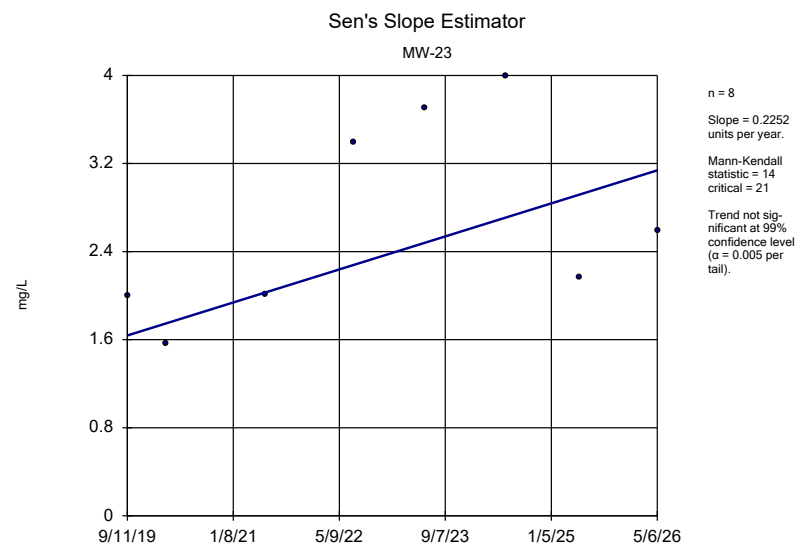
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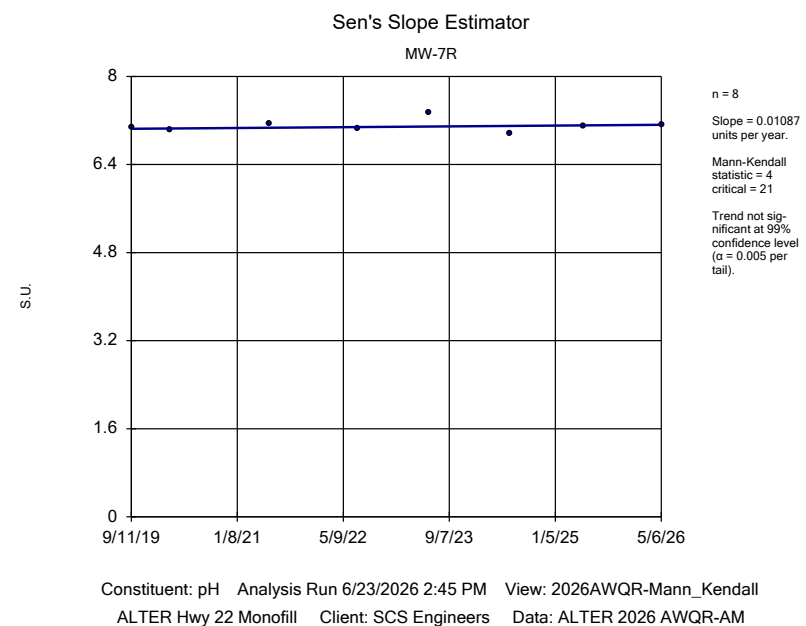
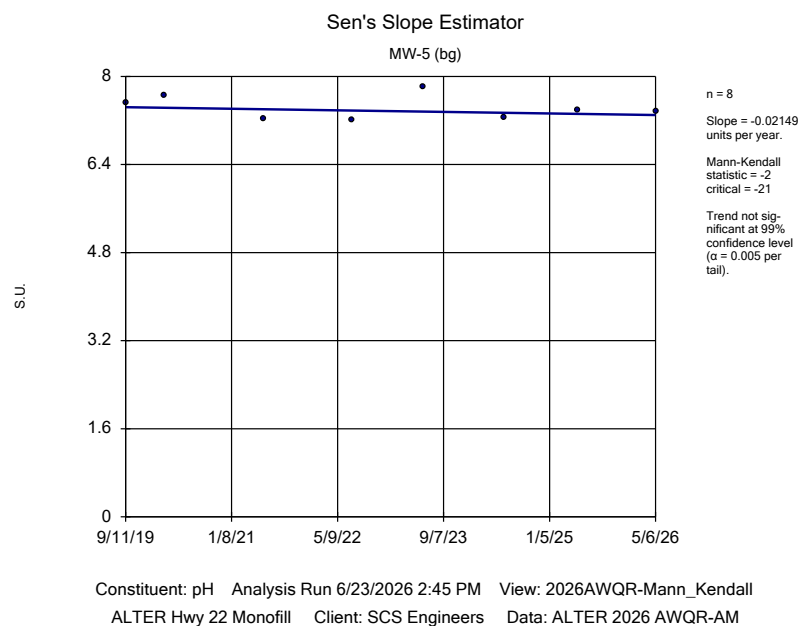
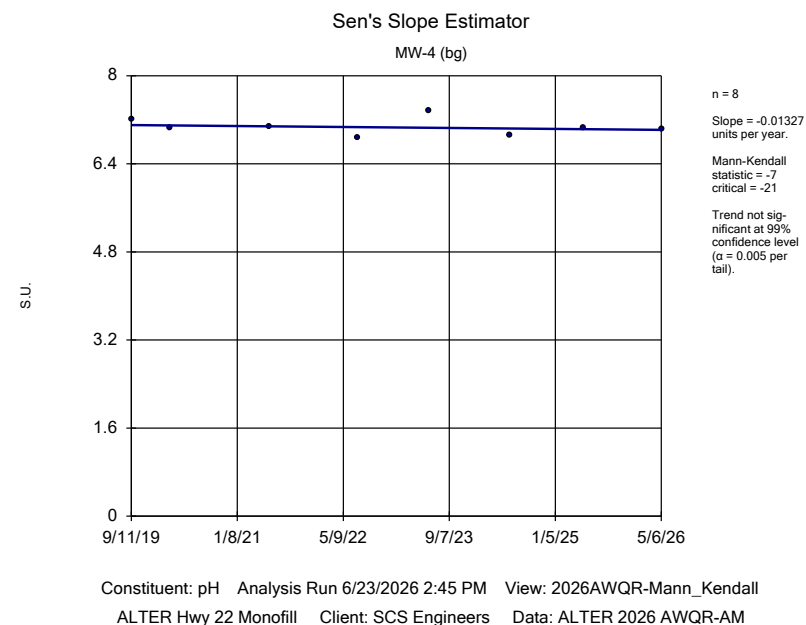
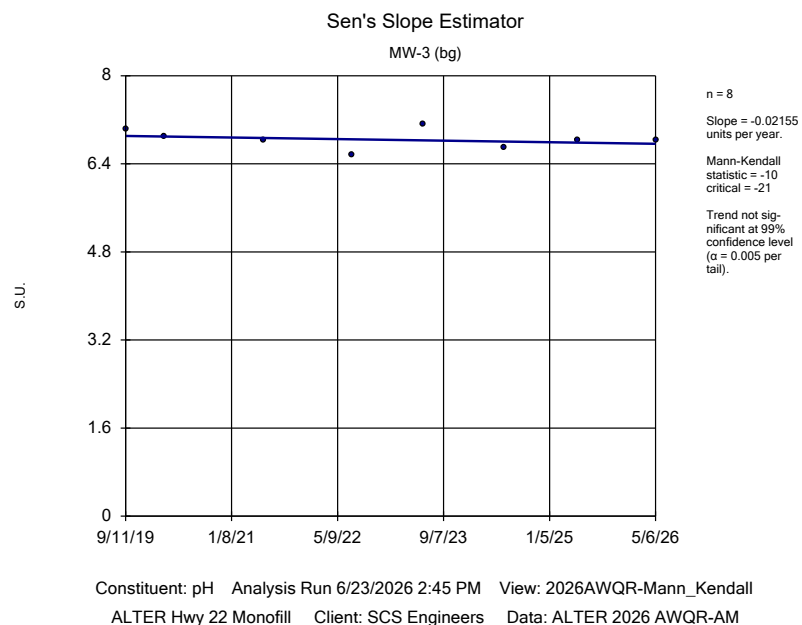
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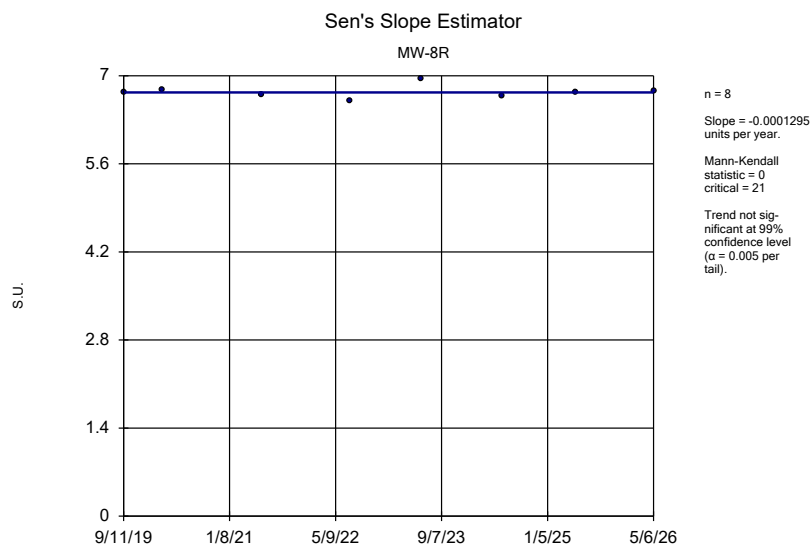


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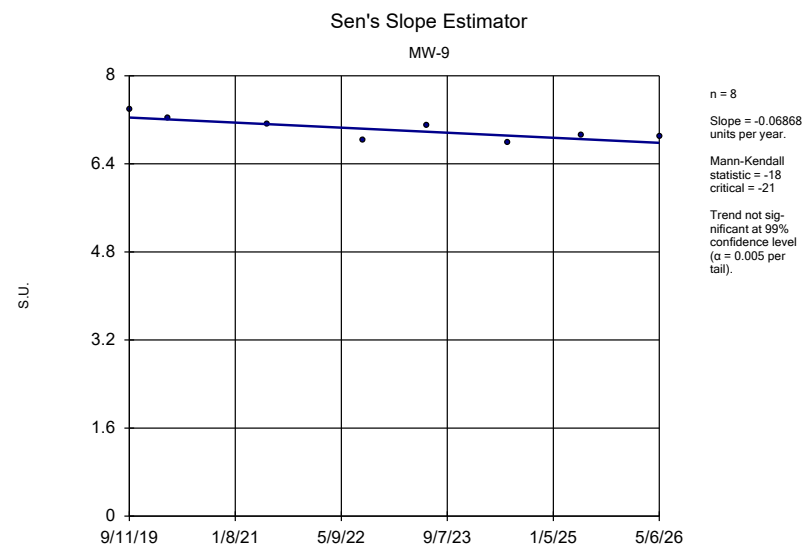


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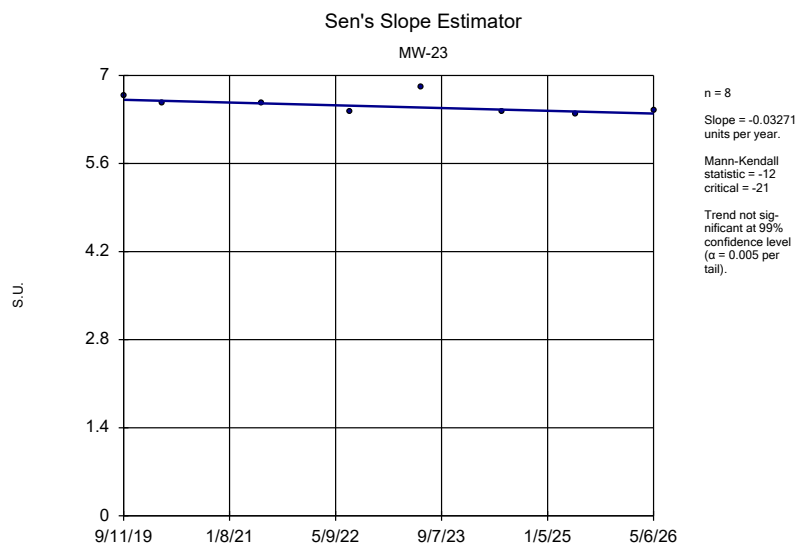




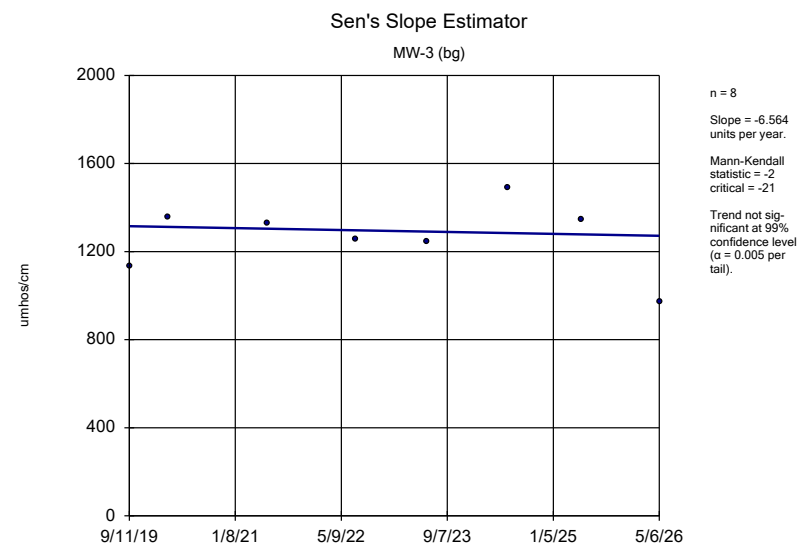
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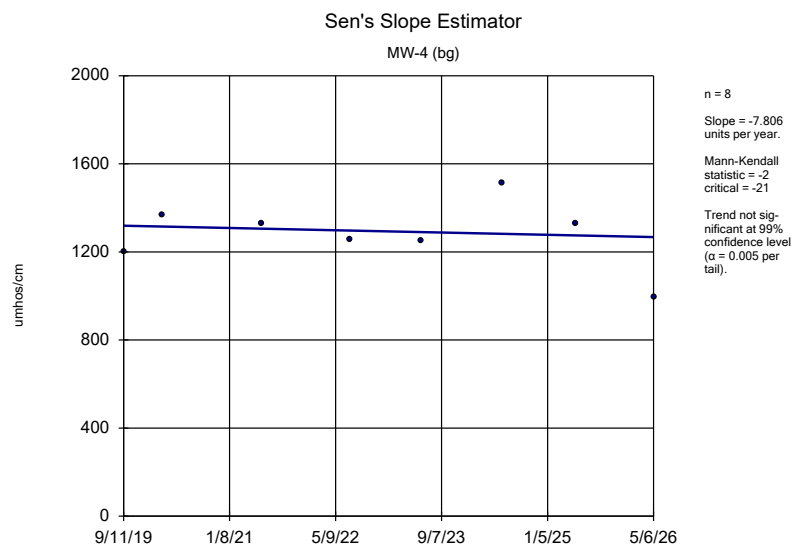
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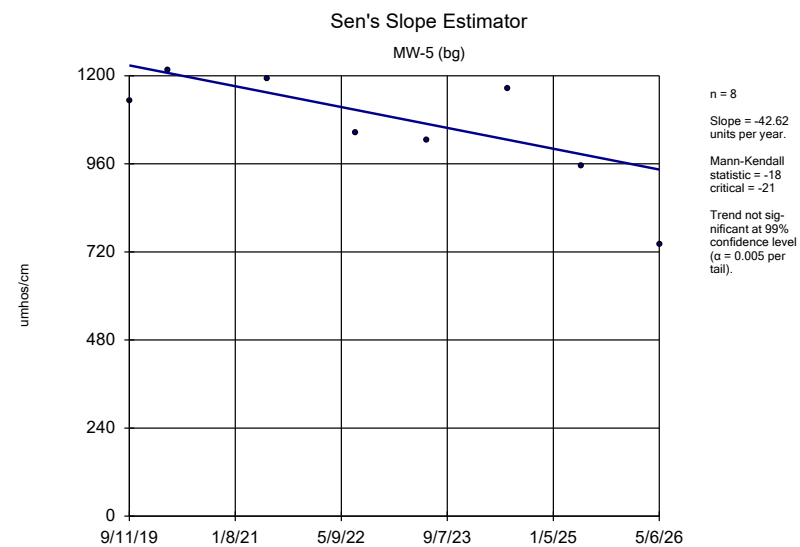
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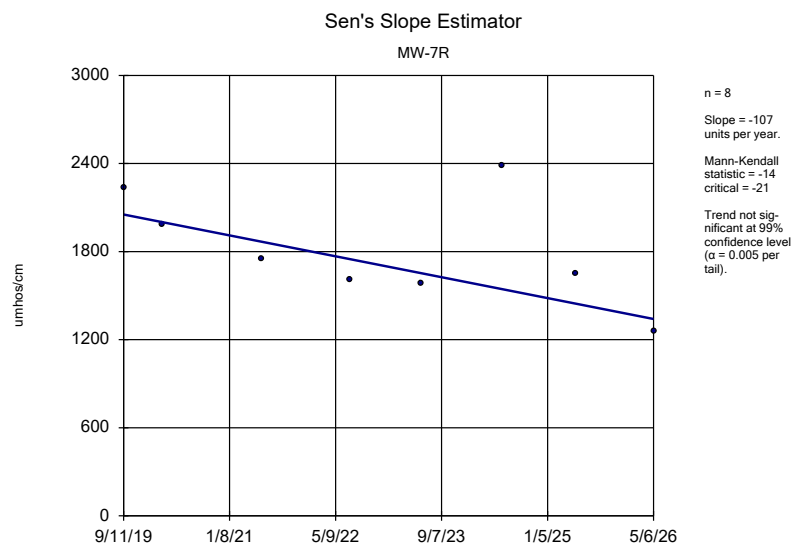
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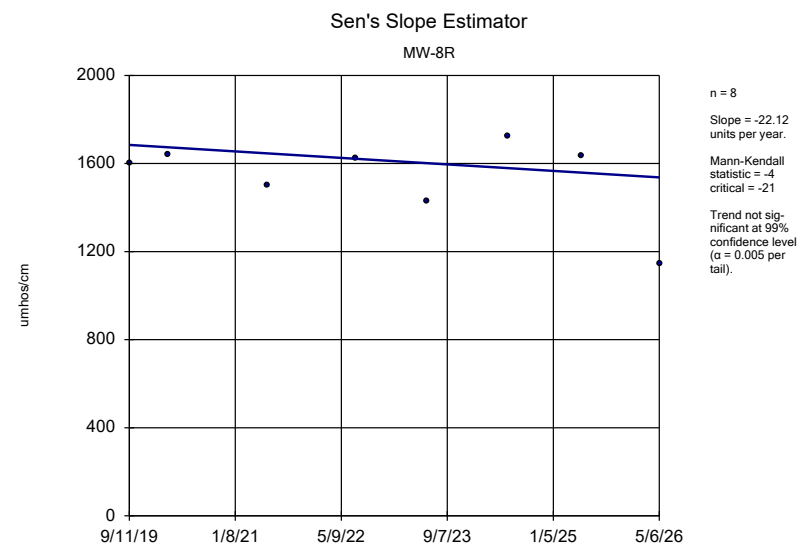
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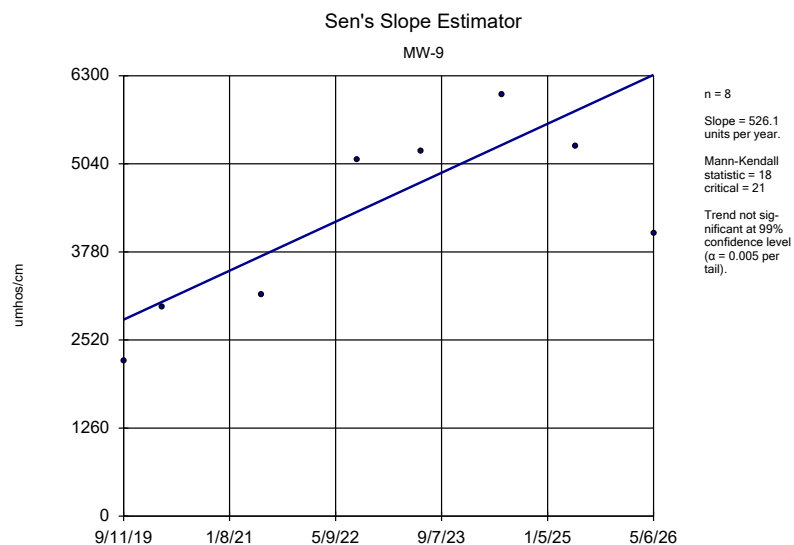
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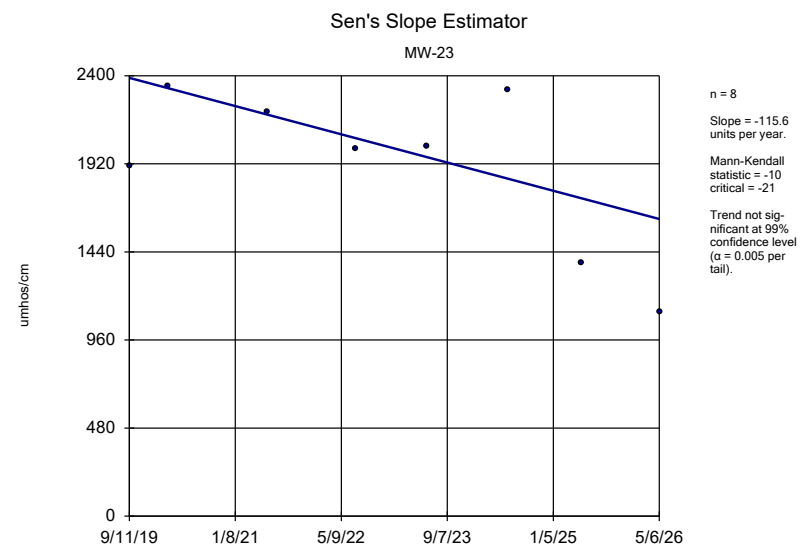
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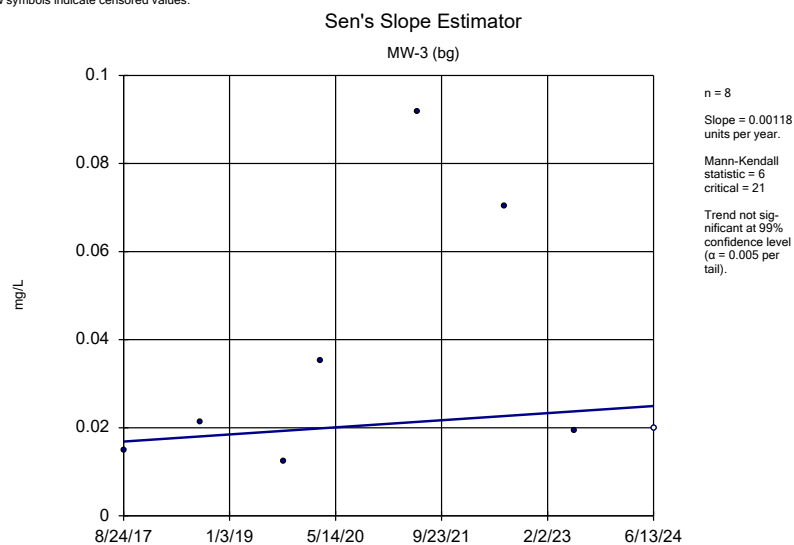
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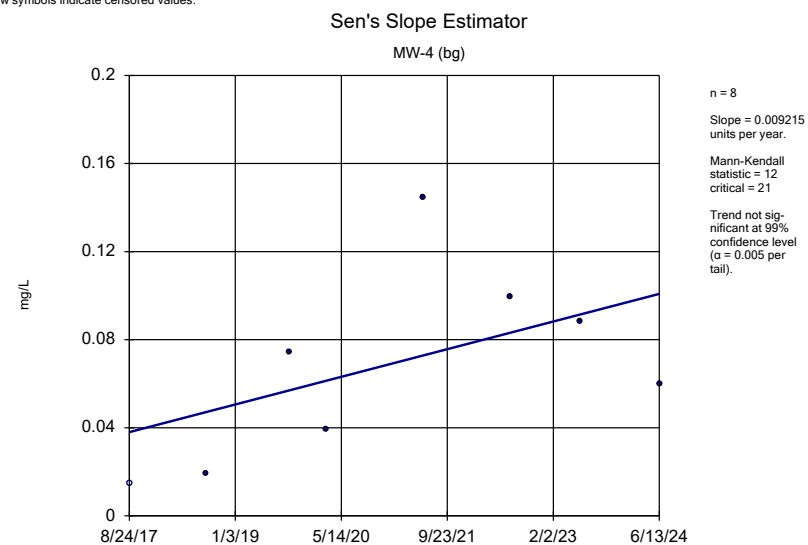
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ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER 2026 AWQR-AM



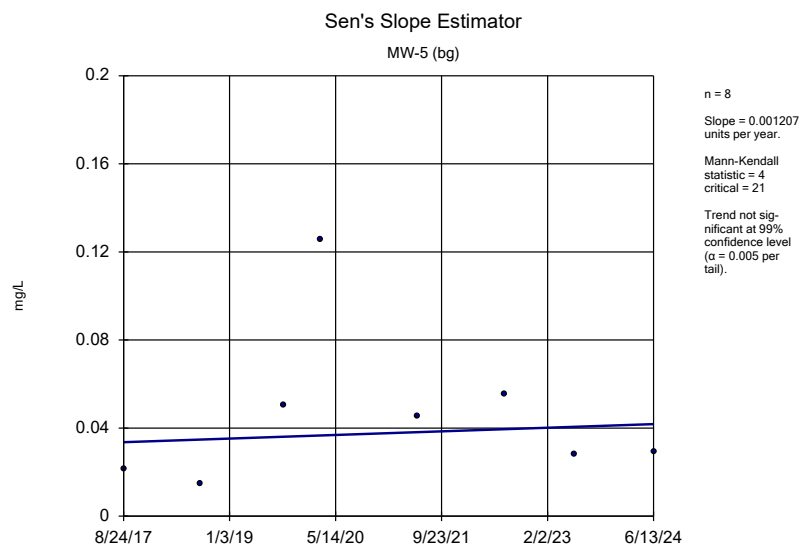
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ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER 2026 AWQR-AM



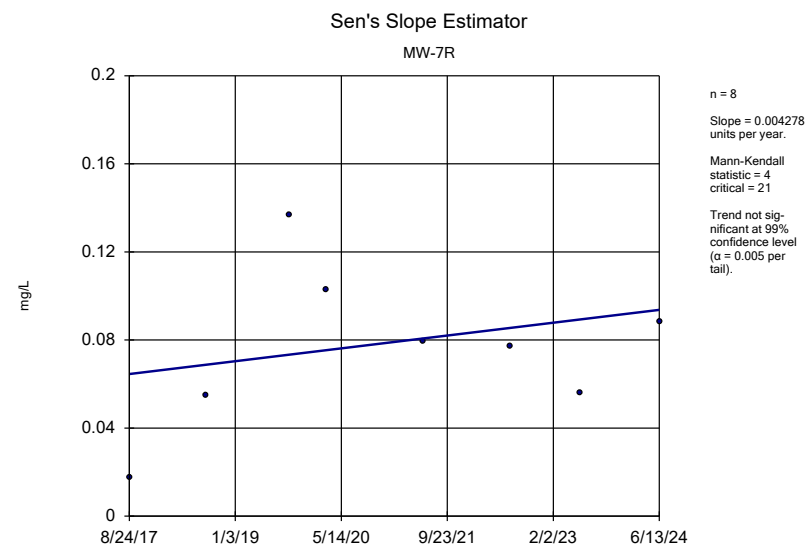
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ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER 2026 AWQR-AM



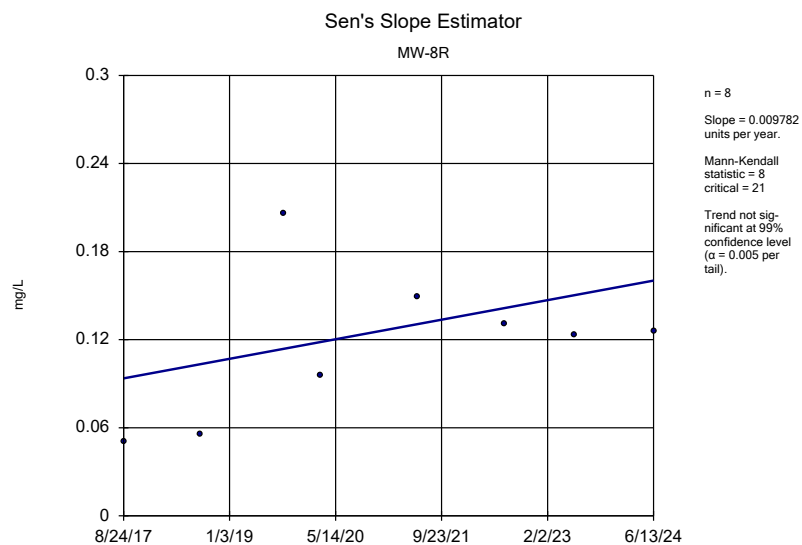
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ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER 2026 AWQR-AM



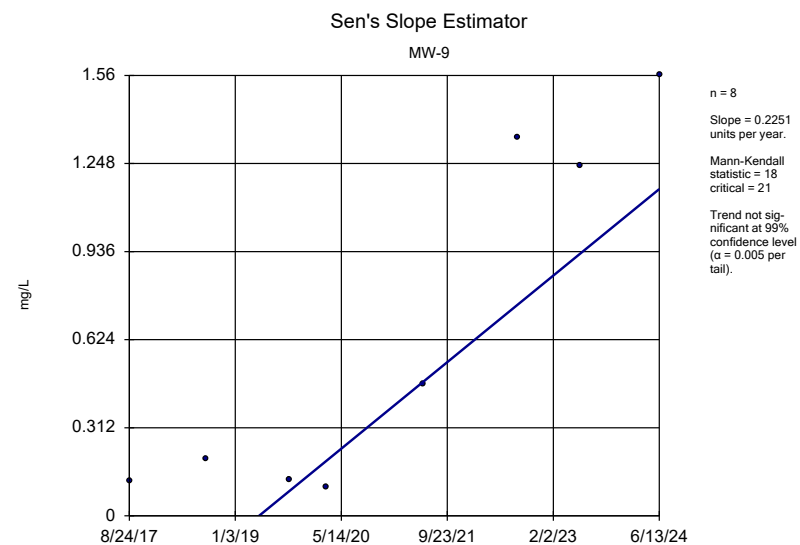
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ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER 2026 AWQR-AM



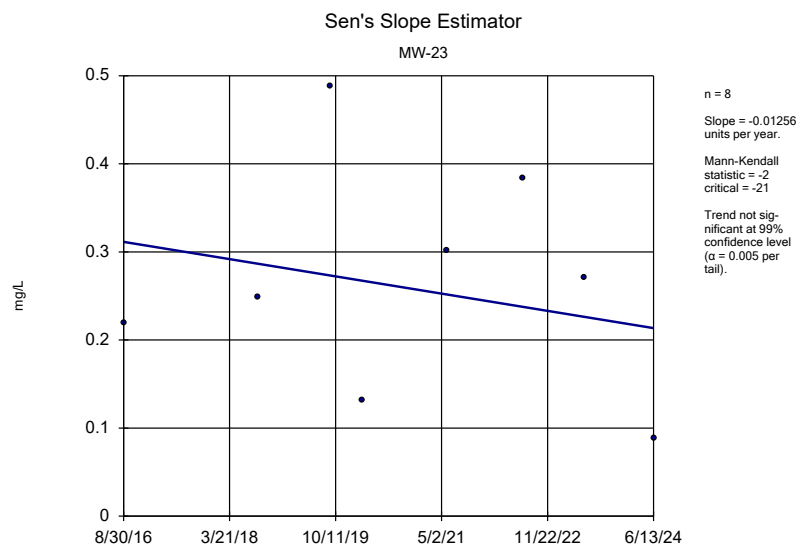
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ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER 2026 AWQR-AM



Constituent: Total Organic Halogens Analysis Run 6/23/2026 2:45 PM View: 2026AWQR-Mann_Kendall
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER 2026 AWQR-AM



Constituent: Total Organic Halogens Analysis Run 6/23/2026 2:45 PM View: 2026AWQR-Mann_Kendall
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER 2026 AWQR-AM



Constituent: Total Organic Halogens Analysis Run 6/23/2026 2:45 PM View: 2026AWQR-Mann_Kendall
ALTER Hwy 22 Monofill Client: SCS Engineers Data: ALTER 2026 AWQR-AM

Appendix E

Mann-Kendall Trend Table

Monitoring Well	Constituent Name	Calculated Statistic		
		Decreasing Trend	Stable Trend	Increasing Trend
MW-3	Arsenic		-3	
	Chemical Oxygen Demand		10	
	Chloride		11	
	Iron		2	
	Nitrogen, Ammonia		2	
	pH		-10	
	Specific Conductance		-2	
	Total Organic Halogens		6	
MW-4	Arsenic		6	
	Chemical Oxygen Demand			13
	Chloride		0	
	Iron		4	
	Nitrogen, Ammonia		8	
	pH		-7	
	Specific Conductance		-2	
	Total Organic Halogens		12	
MW-5	Chemical Oxygen Demand			16
	Chloride		-12	
	Iron		-12	
	Nitrogen, Ammonia		11	
	pH		-2	
	Specific Conductance	-18		
	Total Organic Halogens		4	
MW-7R	Chemical Oxygen Demand		-10	
	Chloride		-8	
	Iron		0	
	Nitrogen, Ammonia			15
	pH		4	
	Specific Conductance	-14		
	Total Organic Halogens		4	
MW-8R	Chemical Oxygen Demand		-11	
	Chloride			16
	Iron		-12	
	Nitrogen, Ammonia			17
	pH		0	
	Specific Conductance		-4	
	Total Organic Halogens		8	
MW-9	Arsenic			20
	Benzene		11	
	Chemical Oxygen Demand			22
	Chloride			20
	Iron			24
	Nitrogen, Ammonia		11	
	pH	-18		
	Specific Conductance			18
	Total Organic Halogens			18
MW-23	Chemical Oxygen Demand		4	
	Chloride		-12	
	Iron		-10	
	Nitrogen, Ammonia			14
	pH		-12	
	Specific Conductance		-10	
	Total Organic Halogens		-2	



Appendix F

Leachate Control System Performance Evaluation Report

Table F1
Leachate Management Summary
2026 Leachate Control System Performance Evaluation Report
Alter Highway 22 Monofill
Permit No. 82-SDP-04-89C

Date of Measurement	Column in Piezometer (ft)							Reporting Month	Discharge to POTW (gal)	Precipitation (in)
	EW-2	EW-3	EW-4	EW-5	EW-6	EW-7	EW-8			
9/2/2025	3.14	3.84	3.08	6.76	1.87	2.47	2.37	Sept. 2025	75,263	4.11
9/30/2025	3.03	3.75	3.04	3.18	1.85	2.43	2.44	Oct. 2025	42,534	0.36
11/1/2025	3.23	3.79	2.90	3.08	1.20	2.36	2.59	Nov. 2025	28,510	1.75
12/1/2025	3.27	3.83	3.09	3.27	1.88	2.28	2.45	Dec. 2025	18,838	1.90
1/2/2026	3.09	3.85	2.94	3.26	1.83	2.29	2.55	Jan. 2026	19,149	1.80
2/2/2026	2.96	3.79	3.09	3.29	1.82	2.40	2.61	Feb. 2026	19,997	0.61
3/2/2026	4.11	3.84	3.59	3.36	1.72	2.53	2.39	Mar. 2026	14,224	0.04
3/30/2026	3.04	3.83	3.05	3.27	1.20	2.33	2.69	Apr. 2026	23,971	2.88
4/30/2026	3.12	3.85	3.56	3.19	1.73	2.46	2.68	May 2026	59,116	5.55
6/1/2026	2.85	3.77	3.02	3.28	1.92	2.48	2.63	Jun. 2026	54,273	1.41
Reporting Period Total									355,875	20.41

Notes:

- 1) Leachate column thicknesses for the reporting period generally remained consistent with historical measurements.
- 2) Historical leachate levels and graphs are provided in Attachment A.
- 3) Precipitation data for September 2025 - obtained from [ncdc.noaa.gov](https://www.ncdc.noaa.gov).
- 4) NA - Not Available

Comments:

Reporting Period: September 2025 - June 2026.

Approved Changes to Leachate Collection System: None.

Proposed Changes to Leachate Collection System: None.

Maintenance Performed on Leachate Collection System: The breaker for EW-5 was reset following the September 2025 measurement.

Last Date of Cleaning and Inspection: None

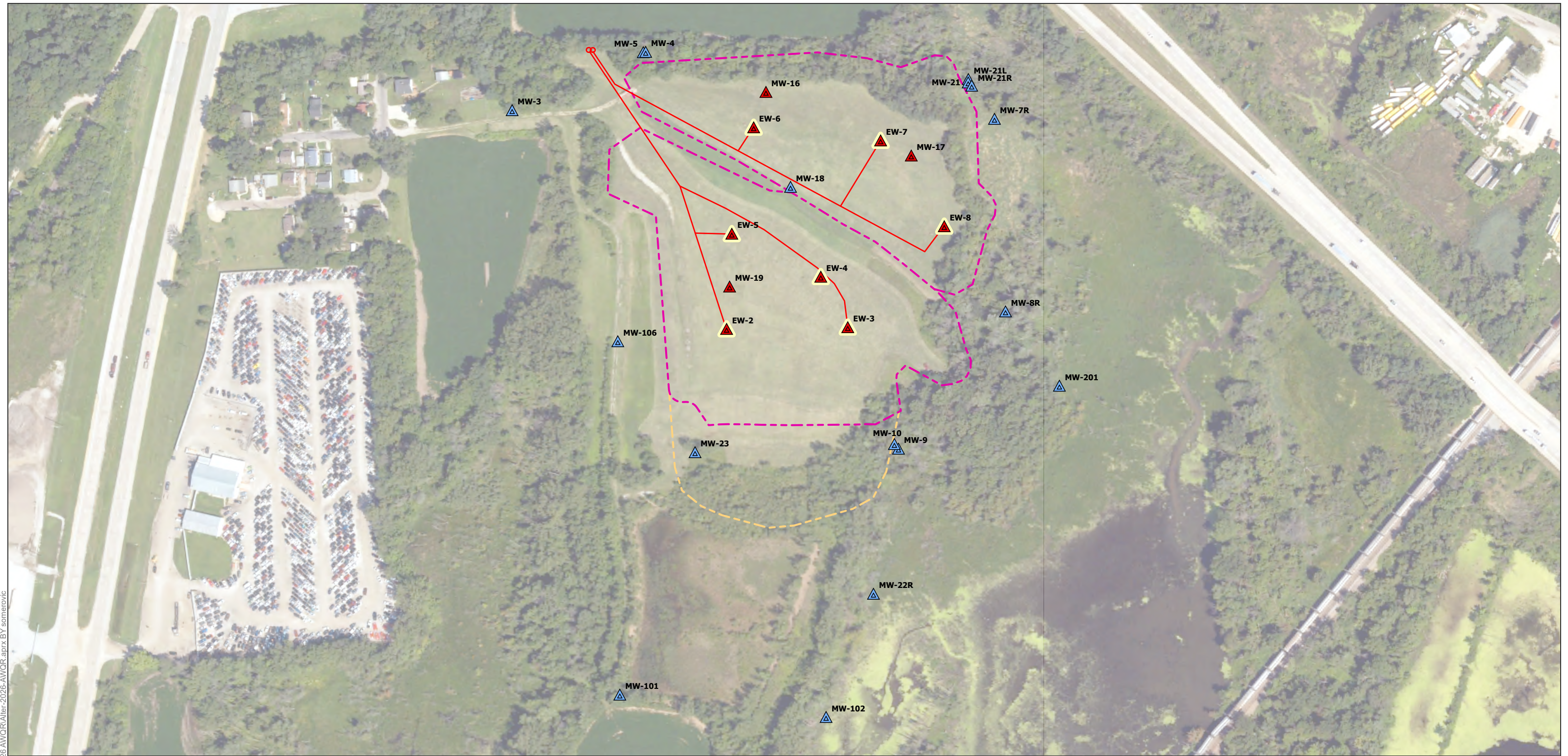
Date of Next Cleaning and Inspection: None.

Volume of Leachate Recirculated: Not Applicable.

Volume of Leachate Treated Off-Site: 355,875 gallons were pumped to the City of Davenport during the reporting period.

Leachate Quality Testing Results: Leachate quality testing results for the reporting period are provided in Attachment B.

C:\Users\somerovic\Documents\ArcGIS\Working\ALTER\ALTER2026 AWQR\Alter-2026-AWQR.aprx BY somerovic



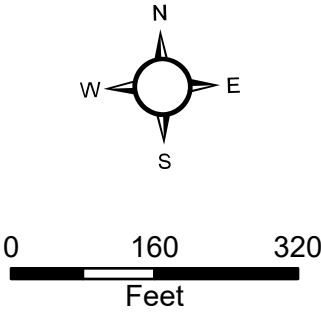
Legend

- Approximate Monitoring Well Location

Approximate Leachate Monitoring Location
- Leachate Extraction Well

Leachate Pipe
- Approximate Waste Boundary

Approximate Waste Excavation Boundary



Leachate Control System

FIGURE 1
Alter Trading Corporation
Davenport, Iowa

27226134.00 **July 2026**

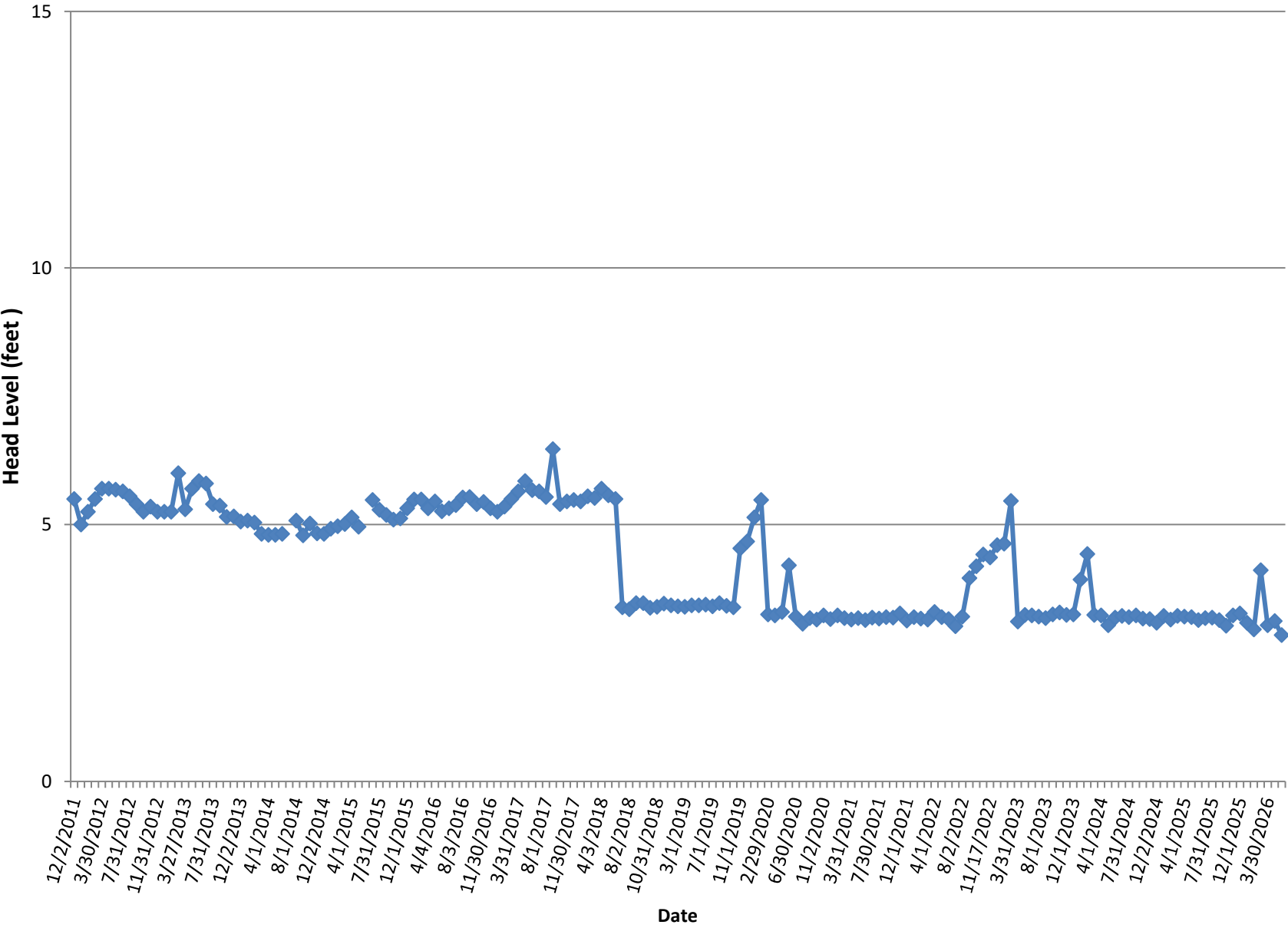
SCS ENGINEERS



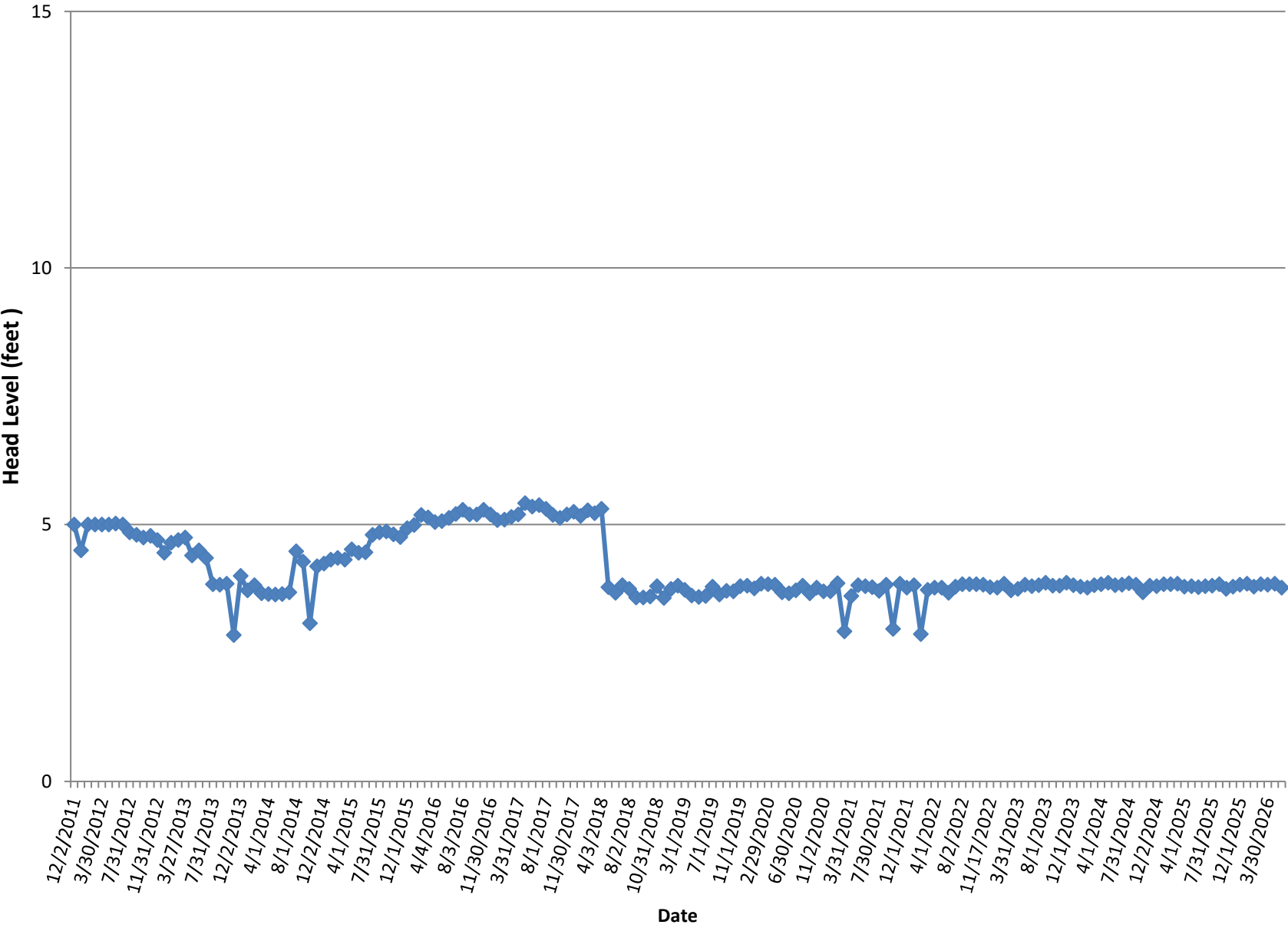
Attachment A

Historical Leachate Level Graphs

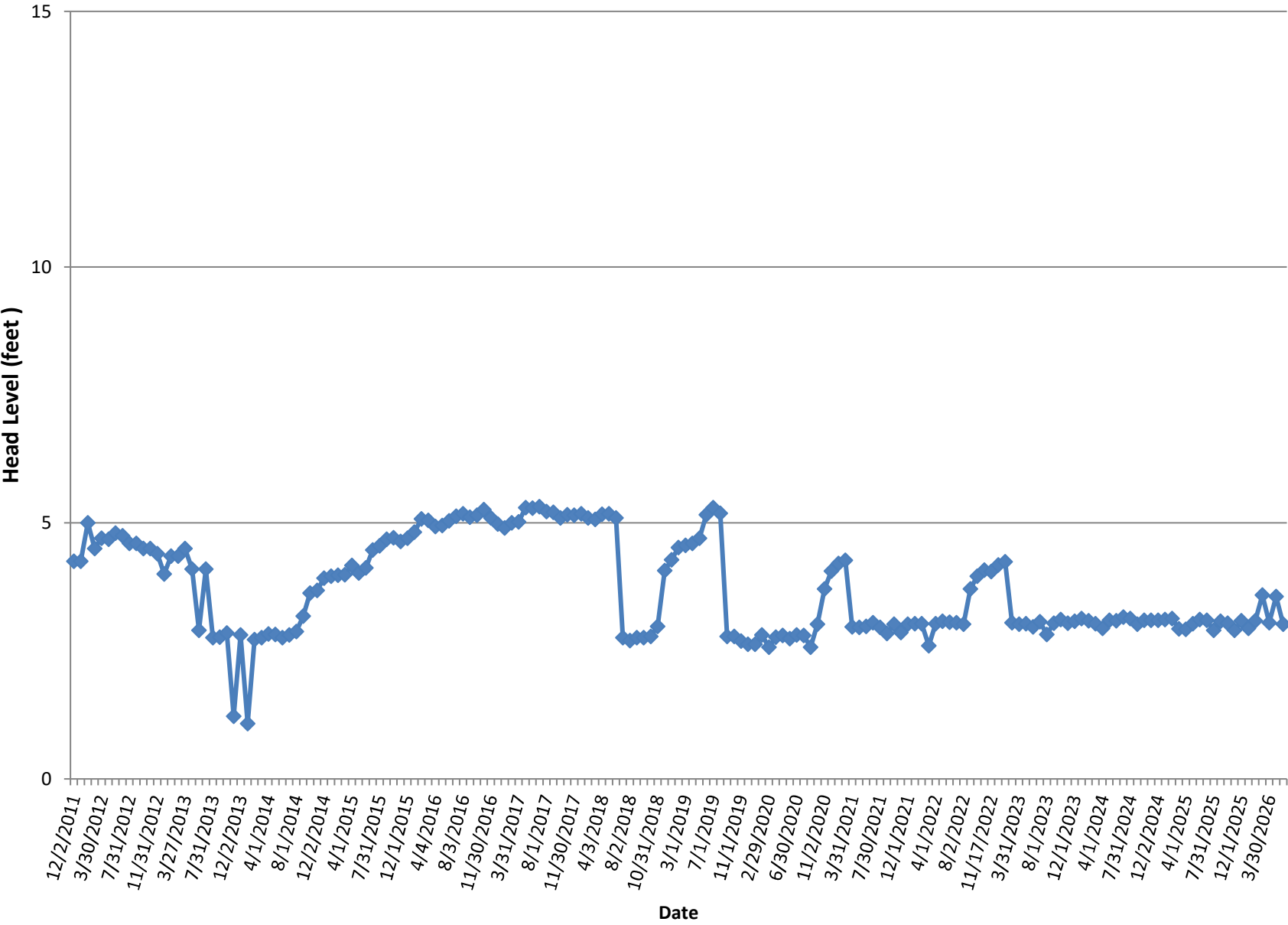
EW-2 Historical Leachate Column Thicknesses



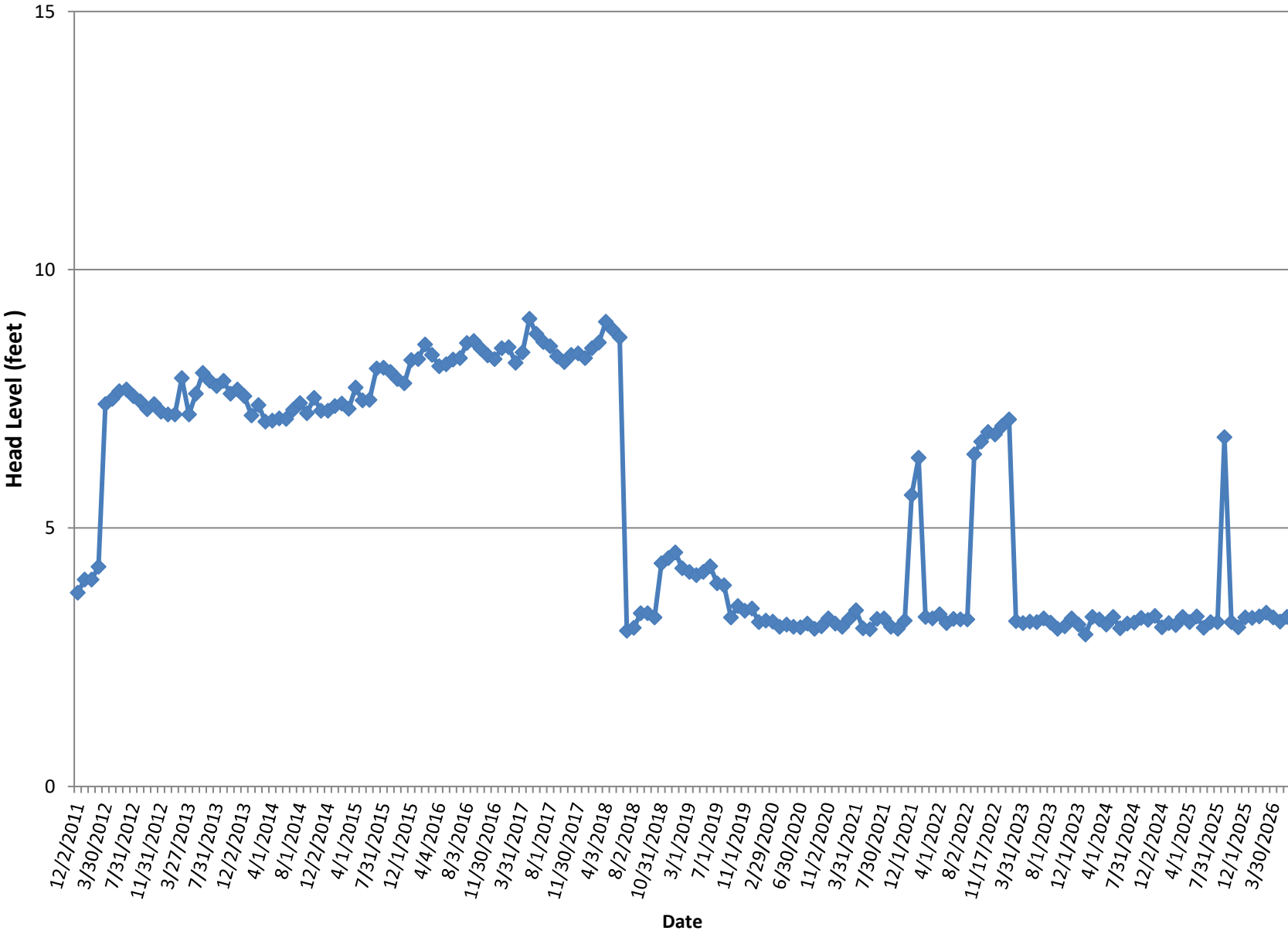
EW-3 Historical Leachate Column Thicknesses



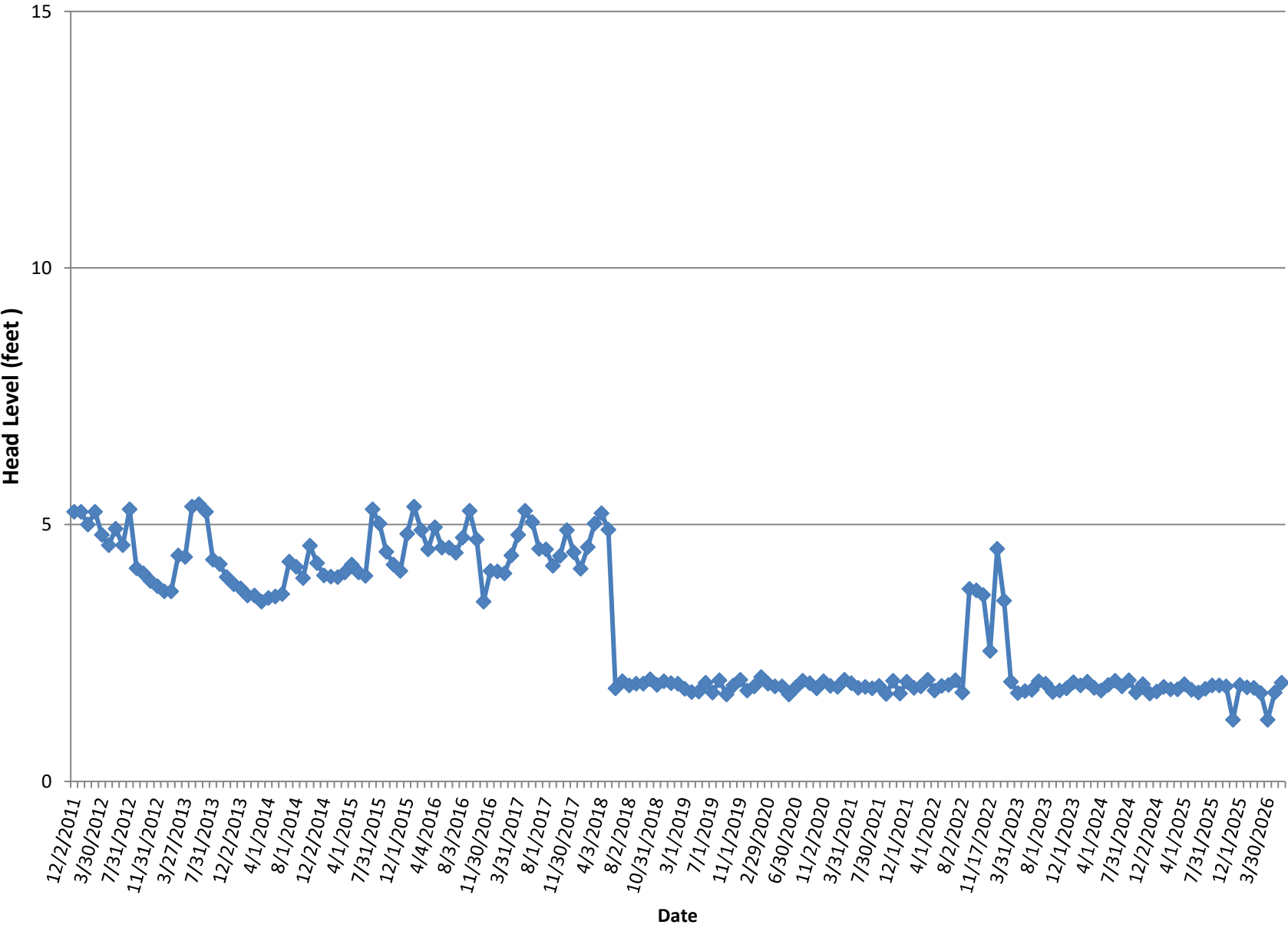
EW-4 Historical Leachate Column Thicknesses



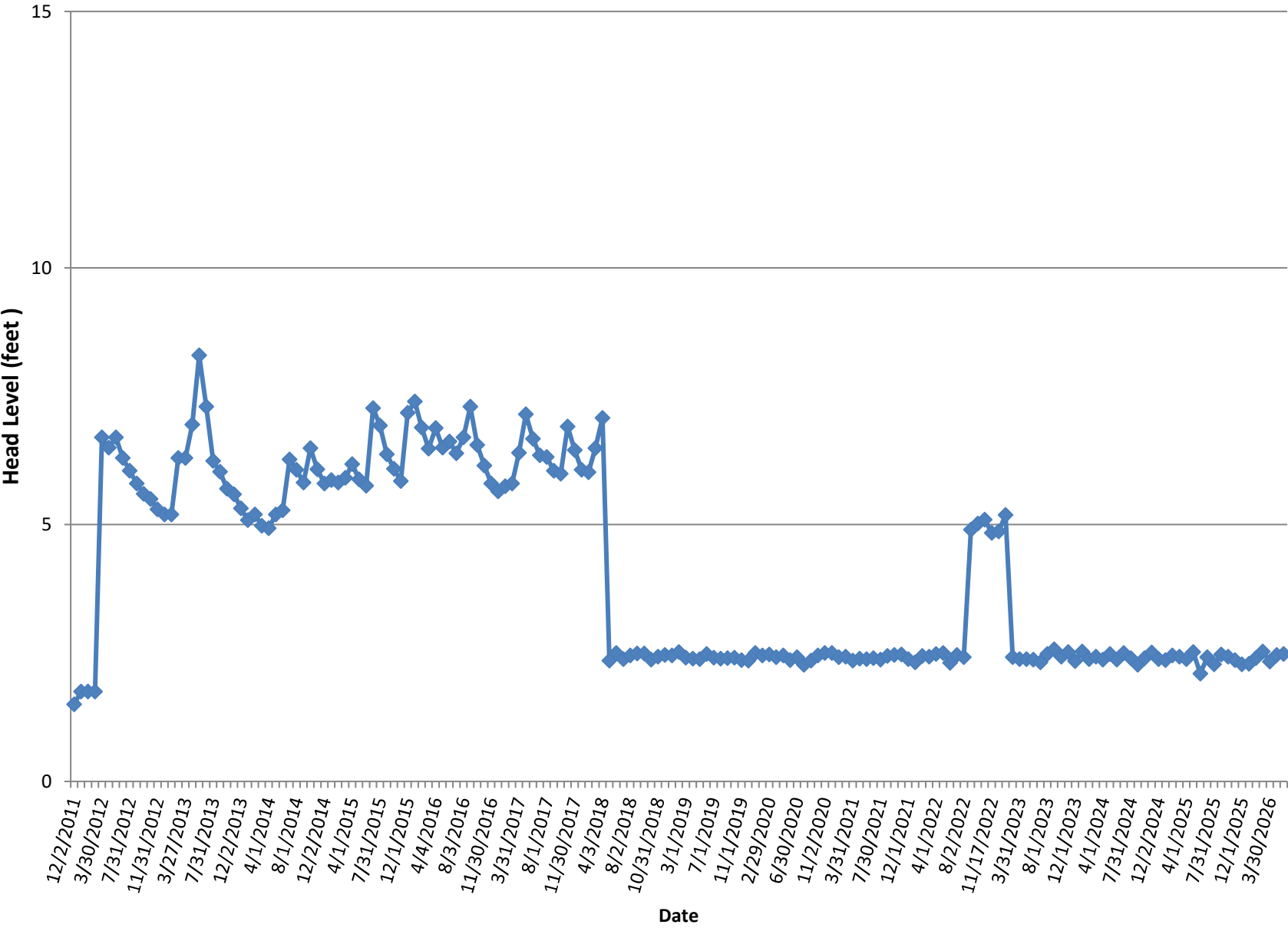
EW-5 Historical Leachate Column Thicknesses



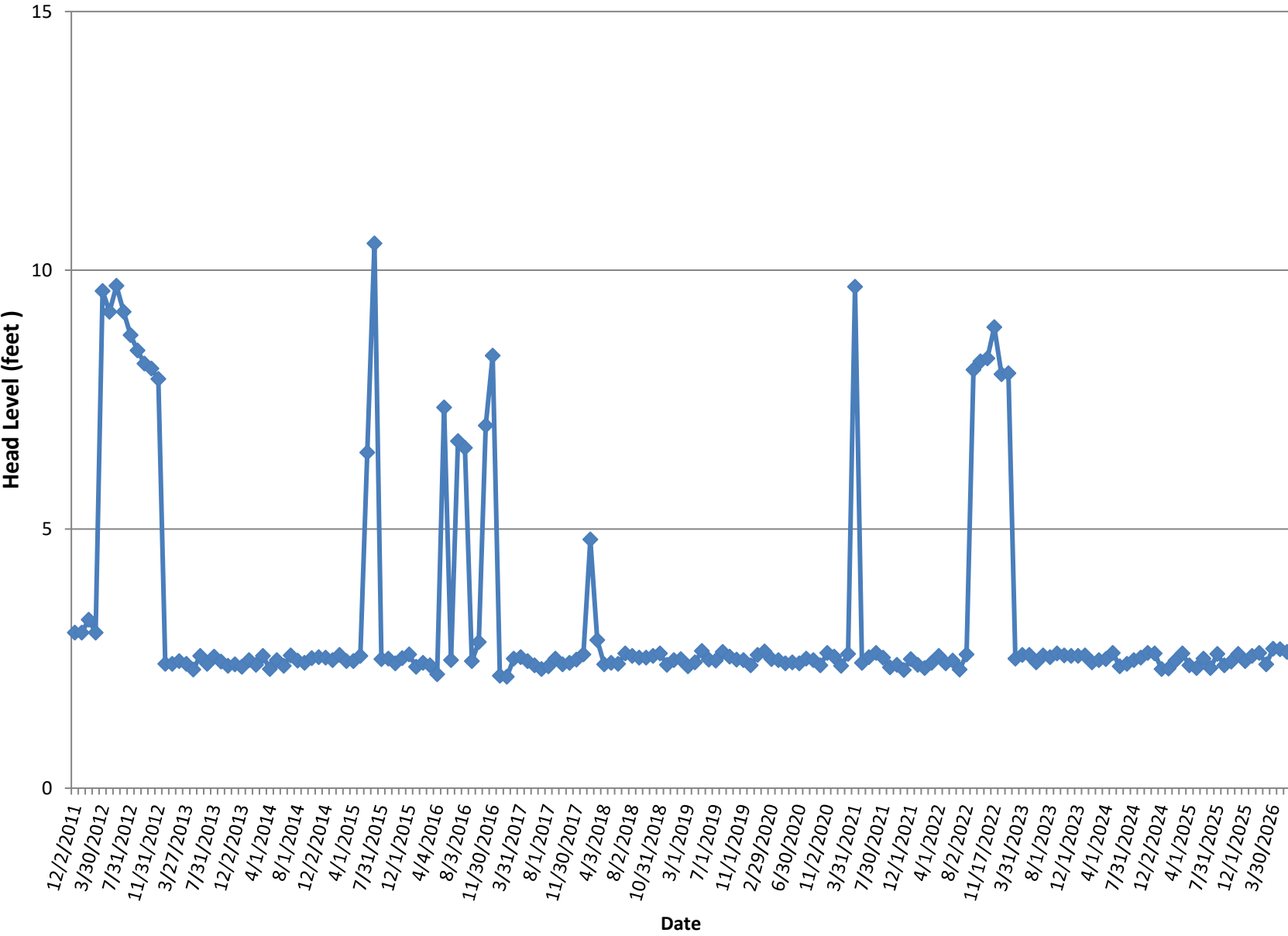
EW-6 Historical Leachate Column Thicknesses



EW-7 Historical Leachate Column Thicknesses



EW-8 Historical Leachate Column Thicknesses





Attachment B

Leachate Quality Testing Results



Analytical Report

REPORT TO

Alter Trading Corporation
5200 Wisconsin Avenue
Davenport, IA 52802
Patrick.Kohlmeier@altertrading.com

Sample ID **AB15928**

Outfall # **1**

Sample Collection Date: 7/28/2025

Sample Collector : NF

Sample Type : Grab

Sample Report Date : 8/13/2025

Analyte Name	Result	Units	Analysis Method	Analyst	Analysis Date	Qualifier
TSS	9	mg/L	SM 2540D	JV	7/28/25	
Grab pH	7.65	S.U.	SM 4500H+ B	NF	7/28/25	
Oil and Grease	<5	mg/L	EPA 1664B	JKA	7/30/25	
Total Cyanide	<0.01	mg/l	SM 4500-CN C,E	JKA	8/1/25	
BOD	17	mg/L	SM 5210B	JKA	7/29/25	
Aluminum	0.2341	mg/l	EPA 200.7	MA	8/12/25	
Arsenic	<0.02	mg/l	EPA 200.7	MA	8/12/25	
Cadmium	<0.01	mg/l	EPA 200.7	MA	8/12/25	
Chromium	0.0124	mg/l	EPA 200.7	MA	8/12/25	
Copper	0.0138	mg/l	EPA 200.7	MA	8/12/25	
Lead	0.0292	mg/l	EPA 200.7	MA	8/12/25	
Molybdenum	0.2027	mg/l	EPA 200.7	MA	8/12/25	
Nickel	0.0456	mg/l	EPA 200.7	MA	8/12/25	
Selenium	<0.01	mg/l	EPA 200.7	MA	8/12/25	
Silver	<0.005	mg/l	EPA 200.7	MA	8/12/25	
Zinc	0.0292	mg/l	EPA 200.7	MA	8/12/25	



Analytical Report

REPORT TO

Alter Trading Corporation
5200 Wisconsin Avenue
Davenport, IA 52802
Patrick.Kohlmeier@altertrading.com

Sample ID **AB17411**

Outfall # **1**

Sample Collection Date: 10/22/2025

Sample Collector : NF

Sample Type : Grab

Sample Report Date : 11/6/2025

Analyte Name	Result	Units	Analysis Method	Analyst	Analysis Date	Qualifier
TSS	8	mg/L	SM 2540D	BK	10/22/25	
Grab pH	7.91	S.U.	SM 4500H+ B	NF	10/22/25	
Oil and Grease	<5	mg/L	EPA 1664B	MA	10/28/25	
Total Cyanide	<0.01	mg/l	SM 4500-CN C,E	MA	10/24/25	
BOD	22	mg/L	SM 5210B	JKA	10/23/25	
Aluminum	0.1559	mg/l	EPA 200.7	JV	10/28/25	
Arsenic	<0.02	mg/l	EPA 200.7	JV	10/28/25	
Cadmium	<0.01	mg/l	EPA 200.7	JV	10/28/25	
Chromium	0.0190	mg/l	EPA 200.7	JV	10/28/25	
Copper	0.0179	mg/l	EPA 200.7	JV	10/28/25	
Lead	0.0105	mg/l	EPA 200.7	JV	10/28/25	
Molybdenum	0.3389	mg/l	EPA 200.7	JV	10/28/25	
Nickel	0.0672	mg/l	EPA 200.7	JV	10/28/25	
Selenium	<0.01	mg/l	EPA 200.7	JV	10/28/25	
Silver	<0.005	mg/l	EPA 200.7	JV	10/28/25	
Zinc	0.0378	mg/l	EPA 200.7	JV	10/28/25	



Analytical Report

REPORT TO

Alter Trading Corporation
5200 Wisconsin Avenue
Davenport, IA 52802
Patrick.Kohlmeier@altertrading.com

Sample ID **AB18858**

Outfall # **1**

Sample Collection Date: 1/20/2026 1

Sample Collector : NF

Sample Type : Grab

Sample Report Date : 2/5/2026

Analyte Name	Result	Units	Analysis Method	Analyst	Analysis Date	Qualifier
TSS	12	mg/L	SM 2540D	MA	1/20/26	
Grab pH	7.42	S.U.	SM 4500H+ B	NF	1/20/26	
Total Phenol	<0.02	mg/l	EPA 420.1	BK	2/5/26	
Oil and Grease	8	mg/L	EPA 1664B	BK	1/30/26	
Total Cyanide	<0.02	mg/l	SM 4500-CN C,E	JV	1/28/26	
BOD	19	mg/L	SM 5210B	MA	1/21/26	
Aluminum	0.3004	mg/l	EPA 200.7	JM	1/27/26	
Arsenic	<0.02	mg/l	EPA 200.7	JM	1/27/26	
Cadmium	<0.01	mg/l	EPA 200.7	JM	1/27/26	
Chromium	0.0117	mg/l	EPA 200.7	JM	1/27/26	
Copper	<0.01	mg/l	EPA 200.7	JM	1/27/26	
Lead	<0.01	mg/l	EPA 200.7	JM	1/27/26	
Molybdenum	0.2528	mg/l	EPA 200.7	JM	1/27/26	
Nickel	0.0455	mg/l	EPA 200.7	JM	1/27/26	
Selenium	<0.01	mg/l	EPA 200.7	JM	1/27/26	
Silver	<0.005	mg/l	EPA 200.7	JM	1/27/26	
Zinc	0.0169	mg/l	EPA 200.7	JM	1/27/26	



Analytical Report

REPORT TO

Alter Trading Corporation
5200 Wisconsin Avenue
Davenport, IA 52802
Patrick.Kohlmeier@altertrading.com

Sample ID **AB20442**

Outfall # **1**

Sample Collection Date: 4/20/2026 1

Sample Collector : NF

Sample Type : Grab

Sample Report Date : 5/11/2026

Analyte Name	Result	Units	Analysis Method	Analyst	Analysis Date	Qualifier
TSS	8	mg/L	SM 2540D	JV	4/20/26	
Grab pH	7.86	S.U.	SM 4500H+ B	NF	4/20/26	
Oil and Grease	<5	mg/L	EPA 1664B	JKA	4/29/26	
Total Cyanide	<0.01	mg/l	SM 4500-CN C,E	JKA	4/24/26	
BOD	12	mg/L	SM 5210B	MA	4/21/26	
Aluminum	0.1662	mg/L	EPA 200.7		4/24/26	
Arsenic	<0.02	mg/L	EPA 200.7		4/24/26	
Cadmium	<0.01	mg/L	EPA 200.7		4/24/26	
Chromium	0.0197	mg/L	EPA 200.7		4/24/26	
Copper	0.0180	mg/L	EPA 200.7		4/24/26	
Lead	<0.01	mg/L	EPA 200.7		4/24/26	
Molybdenum	0.1624	mg/L	EPA 200.7		4/24/26	
Nickel	0.0571	mg/L	EPA 200.7		4/24/26	
Selenium	<0.01	mg/L	EPA 200.7		4/24/26	
Silver	<0.005	mg/L	EPA 200.7		4/24/26	
Zinc	0.0486	mg/L	EPA 200.7		4/24/26	

Appendix G

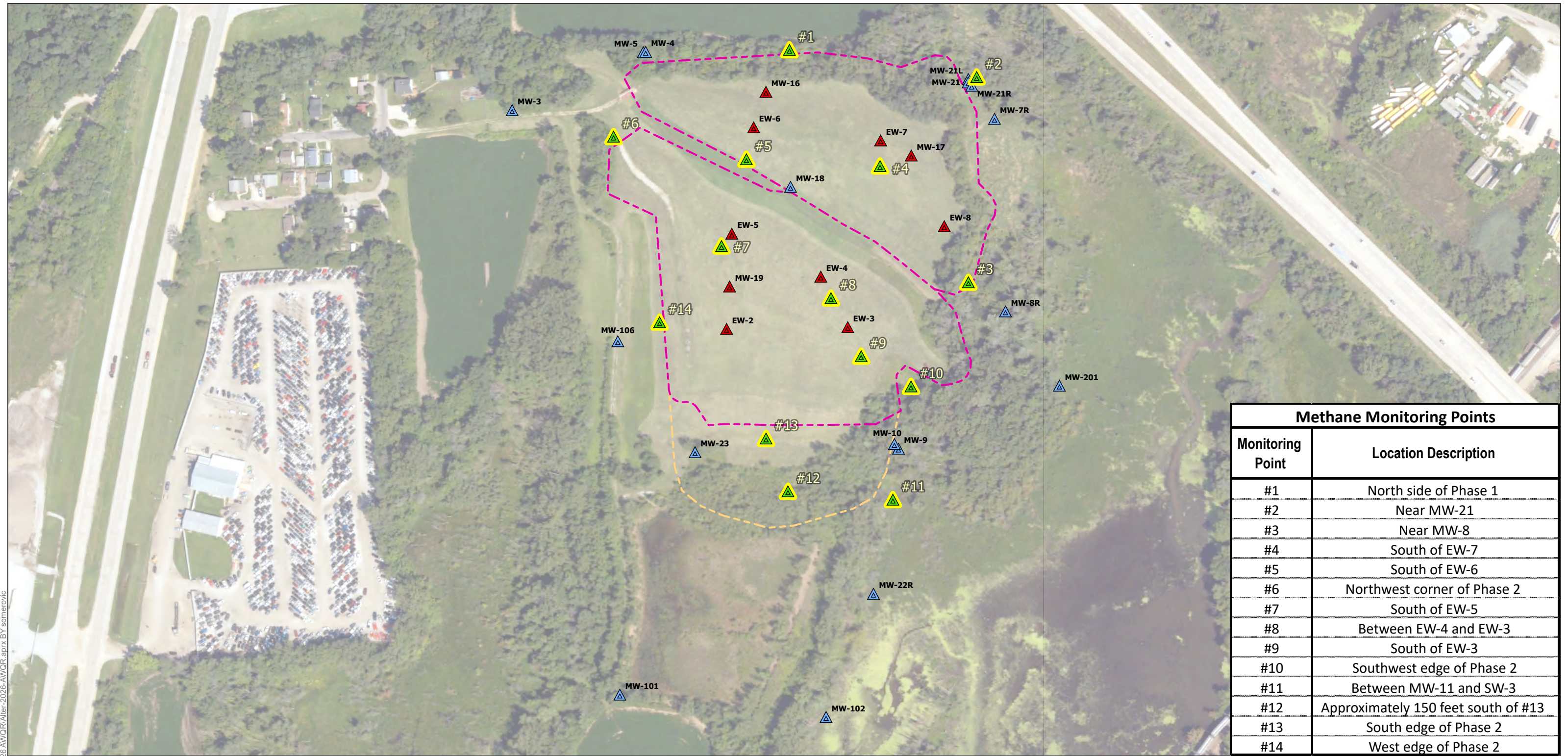
Landfill Gas Annual Report

Table G1
Landfill Gas Monitoring Summary
2026 Landfill Gas Monitoring Report
Alter Highway 22 Monofill
Permit No. 82-SDP-04-89C

Monitoring Points			Methane Results (% LEL)	
Name	Type	Description	5/6/2026	S (Y/N)
#1	Outdoor	North side of Phase 1	0%	
#2	Outdoor	Near MW-21	0%	
#3	Outdoor	Near MW-8	0%	
#4	Outdoor	South of EW-7	0%	
#5	Outdoor	South of EW-6	0%	
#6	Outdoor	Northwest corner of Phase 2	0%	
#7	Outdoor	South of EW-5	0%	
#8	Outdoor	Between EW-4 and EW-3	0%	
#9	Outdoor	South of EW-3	0%	
#10	Outdoor	Southwest edge of Phase 2	0%	
#11	Outdoor	South of MW-9	0%	
#12	Outdoor	Approximately 150 feet south of #13	0%	
#13	Outdoor	South edge of Phase 2	0%	
#14	Outdoor	West edge of Phase 2	0%	

S(Y/N) - Was screen submerged, yes or no.

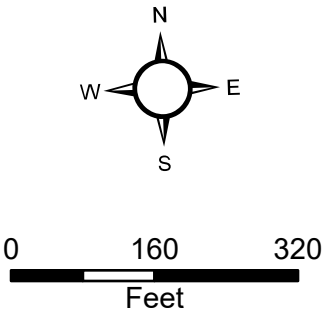
C:\Users\somerovic\Documents\ArcGIS\Working\ALTER\ALTER-2026-AWQR\Alter-2026-AWQR.aprx BY somerovic



Methane Monitoring Points	
Monitoring Point	Location Description
#1	North side of Phase 1
#2	Near MW-21
#3	Near MW-8
#4	South of EW-7
#5	South of EW-6
#6	Northwest corner of Phase 2
#7	South of EW-5
#8	Between EW-4 and EW-3
#9	South of EW-3
#10	Southwest edge of Phase 2
#11	Between MW-11 and SW-3
#12	Approximately 150 feet south of #13
#13	South edge of Phase 2
#14	West edge of Phase 2

Legend

-  Methane Monitoring Point
-  Approximate Leachate Monitoring Location
-  Approximate Monitoring Well Location
-  Approximate Waste Boundary
-  Approximate Waste Excavation Boundary



1 inch = 214 feet

Methane Monitoring Network

FIGURE 1
Alter Trading Corporation
Davenport, Iowa

27226134.00

July 2026

SCS ENGINEERS