

2025 ANNUAL GROUNDWATER QUALITY REPORT

FOR THE

FAYETTE COUNTY SANITARY LANDFILL

33-SDP-02-83C

FAYETTE, IOWA

by:

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Certification

Prepared by: 

Date: 1-19-2026

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Section 1.0 Background Information

1.1 Report Format

Table 1 through Table 15B are attached to this report and satisfy the IDNR requirement to provide the tables to meet the IDNR format requirements included in Special Provision X.5.g. of the Permit Revision – Amendment No. 2, dated August 14, 2025 (Doc #113637).

Water quality data evaluation is based on a running compilation of data beginning in October 24, 2014. Statistical evaluations herein are based on the 2025 water quality data collected April 1, 2025 and October 13, 2025.

1.2 Report Priority

No requests are made herein for priority review of this document.

The horizontal impact near MW-5 was delineated and reported to IDNR on March 5, 2018 (Doc #91714). An Assessment of Corrective Measures (ACM) was completed and submitted to IDNR on September 24, 2018 (Doc #93290). The ACM was approved in Permit Revision #8 dated August 22, 2019 (Doc #95760). The remedy was constructed in October, 2020 and Construction Certification (Doc # 98814) was submitted to IDNR on October 29, 2020.

MW-5 is designated as the Corrective Action Monitoring Point of Compliance Well following construction of the remedy. SSL continue to be recorded at monitoring well MW-5 but appear to be decreasing over time.

No other SSL have been identified to date. It is recommended that the semi-annual water quality sampling in 2026 be conducted per Table 1 and Table 2. Sulfide testing will continue on a semi-annual basis at MW-5.

1.3 Current Site Maps

Figure 1 is attached illustrating the current site features and monitoring well locations. Figure 2 is the Water Table Contour Map for the shallow monitoring wells on site. Figure 3 is a Potentiometric Water Surface Map for the limestone wells on the site. Figure 4 illustrates the Leachate System, and the Leachate monitoring points across the facility. Figure 5 illustrates the subsurface gas probe locations for the facility.

1.4 Site Status and Applicable Rules

Site Location

The Fayette County Sanitary Landfill is located in Section 33, T93N, R8W, Fayette County, Iowa, approximately 1 mile south of Fayette, Iowa on County Road C24. The facility operates under the Iowa Department of Natural Resources (IDNR) Permit Number 33-SDP-02-83C.

Landfill Layout

The site encompasses several contiguous, closed fill areas. The fill areas are designated as the Old Fill Area (an unlined landfill cell 1983-1996); Cell 1 (A-D) 1996 to 2009; Area NE-X (1998-2001); and Cell 2A (2001-2009). The landfill facility is closed under

the Closure permit issued June 20, 2013. A transfer station was constructed at the site in 2009 and operates under Permit 33-SDP-07-09XFR. Figure 1 illustrates the former fill areas.

Applicable Rules

Iowa Administrative Code (IAC) 567-113 is applicable to the site.

1.5 Summary of Hydrologic Monitoring System Plan (HMSP)

On September 14, 2012 a HMSP revision was submitted (Doc# 74134), followed by supplemental information on April 23, 2013 (Doc# 76727). The HMSP and Supplemental Information was approved and incorporated into the Closure Permit for the facility dated June 20, 2013 (Doc# 77358). Revisions to the HMSP related to MW-24, MW-32, and MW-33 were approved in Permit Amendment #7, dated October 11, 2018 (Doc #93484).

A request to add two points, Tile ACM-1 and PECS 1, to the HMSP was included in the Construction Certification Report for the Assessment of Corrective Measures project dated October 29, 2020 (Doc #98814).

A request was filed on August 4, 2023 (Doc #107397) requesting that the limestone wells at the site be removed from the HMSP. The request was approved on November 8, 2023, in the Closure Permit Amendment (Doc #108179).

The Site Plan and the approved monitoring network are illustrated on Figure 1. The current HMSP is summarized in Table 1 and Table 2.

MONITORING WELL MAINTENANCE PERFORMANCE REEVALUATION

Table 3 outlines the status of well performance and maintenance activities performed as required by IAC 567-113.10(2) f.

High & Low Water Levels

Water elevation data is included in the attached Table 4 and Table 4A. The annual maximum depth to water and the minimum depth to water are included in the tables. A Water Table Contour Map (Figure 2) dated October 13, 2025 is included with this report. The Water Table Contour Map illustrates the water table surface and the effects of the topography.

Figure 3, Bedrock Aquifer Contour Map illustrates the potentiometric surface of the confined bedrock aquifer at the site on October 13, 2025.

Well Depth & Sedimentation

Well depth measurements were made on October 13, 2025. Review of the measurement data included on Table 4 indicate that well sedimentation is estimated to be less than one (1) foot at all site monitoring wells.

Well Recharge Rates & Chemistry

The 1991 James M. Montgomery Hydrogeological Investigation Report (Doc# 3576) indicates that the horizontal hydraulic conductivity ranged from 5.24×10^{-6} cm/sec to 2.41×10^{-2} cm/sec.

Purging at site monitoring wells on April 22, 2024 indicate that each well experienced moderate to substantial draw-down and confirms the relatively low hydraulic conductivity values for the till/loess wells. Recovery of each well began immediately upon completion of purging. Full recovery was generally within 3 to 8 hours. It was noted that MW-16 requires more than 24 hours to fully recover following well purging activities.

Based on the information presented herein, recharge to the individual wells remained sufficient to promote collection of representative water quality samples and the wells were functioning as intended. Monitoring well recharge reevaluation is due biennially according to 113.10(2)f and should be evaluated again in 2026.

Based on the apparent static condition of the water table across the site, it appears that the semi-annual frequency of water elevation data is sufficient to adequately monitor the hydrologic condition of the site. Based on the information discussed herein, the HMSP wells are situated appropriately to detect potential impact by the landfill.

Section 2.0 Reporting Period Monitoring Activities

A summary of the planned 2026 sample collection events at each well is included in Table 2. A comprehensive summary of all sampling episodes to date is included in Table 9.

Field sampling information for April 1, 2025 and October 13, 2025 sampling episodes is included on the field forms (IDNR Form 542-1322) in Appendix A.

A comprehensive summary of Analytical Data for the episodes between October 24, 2014 and October 13, 2025 is included on Table 9.

2.1 Current Detection Monitoring Activities

The background wells (MW-12, MW-17, and MW-21) and downgradient well MW-16 are in detection monitoring. PECS-1 is utilized to confirm the performance of the Passive Engineered Conveyance Structure (PECS).

2.2 Current Assessment Monitoring Activities

Wells that are in Assessment Monitoring include MW-7, MW-9, MW-24, MW-25, MW-26, MW-32, and MW-33. A summary of the Appendix II sampling episodes is included on Table 2.

A minimum of two (2) rounds of full Appendix II sampling has been completed at each assessment monitoring well.

The frequency of full Appendix II sampling was reduced to once per five (5) years in Permit Amendment #3, dated March 9, 2016 (Doc # 85814). Assessment Monitoring Wells are placed in on-going assessment monitoring following the initial two (2) rounds of sampling in accordance

with requirements of IAC 567-113.10(6)"d"(2), which includes Appendix I plus all detected Appendix II compounds beyond the Appendix I list.

2.3 Current Corrective Action Activities

Historic Corrective Actions in place at this facility include the gas venting system throughout the closed landfill cap (Vents 1-18). A groundwater cut-off line (ACM Tile) coupled with nine (9) vertical subsurface gas vents were constructed outside the waste boundary in the vicinity of MW-5. The remedy was constructed in October, 2020 and Construction Certification (Doc # 98814) was submitted to IDNR on October 29, 2020.

MW-5 is designated the Point of Compliance Corrective Action Monitoring Well, which underwent the full Appendix II sampling on a frequency identical to the Assessment Monitoring wells prior to being designated a Corrective Action Well. There is no requirement in rule to pull Appendix II samples on Corrective Action Wells.

Section 3.0 Data Evaluation and Summary

Statistical Evaluations are prepared by Otter Creek Environmental Services for each monitoring episode. The Groundwater Statistics Report for the Fayette County Landfill, First Semi-Annual Monitoring Event in 2025, dated June 2025 is included in Appendix B.1. The Groundwater Statistics Report for the Fayette County Landfill, Second Semi-Annual Monitoring Event in 2025, dated November, 2025 is included in Appendix B.2.

The Analytical Reports for the laboratory testing on samples collected April 1, 2025 and October 13, 2025 are included in Appendix C.

QUALITY ASSURANCE/QUALITY CONTROL

A blind duplicate sample was collected at MW-9 during the April 1, 2025 sampling episode. A blind duplicate sample was collected at MW-17 during the October 13, 2025 sampling episode.

The purpose of the field duplicate is to evaluate the precision of sample collection and analysis process from the field through the laboratory. The calculation of the Relative Percent Difference (RPD) for duplicate pair results is used as a means to evaluate the precision.

The Quality Control (QC) limit for the RPD on field duplicates is established at thirty percent (30%) for duplicate pairs that have reported concentrations five (5) times greater than the laboratory Reporting Limit. For samples and respective duplicates with reported analyte concentrations nearer the Reporting Limit, the RPD calculations demonstrate greater variability and the RPD can be very large. RPD values are considered non-representative in the following conditions:

- a) Both the original and/or the duplicate results are less than five (5) times the Reporting Limit.
- b) One or both results are qualified, flagged, or estimated.
- c) One or both results are non-detected.

The results of the blind duplicate and the monitoring well results in both the April 1, 2025 and October 13, 2025 sampling episodes are within the limits established and indicate that the data quality is acceptable without restriction.

BACKGROUND DATA VALIDATION

On July 10, 2014 an unnumbered Permit Amendment and Memo was issued by the IDNR regarding turbidity (Doc # 80736). A TSS and Field Turbidity Evaluation Report was submitted on February 17, 2016, and approved by IDNR in Permit Amendment #5 on March 29, 2016 (Doc #85816).

Based on the Unnumbered Permit Amendment, low-flow sampling was performed in October, 2014 and April, 2015. No-purge sampling was performed beginning in October, 2015.

A summary table of field measured turbidity is included in Appendix D.

The background data utilized herein has been restricted to include only sample results that have been collected by “No Purge” methods in order to avoid turbidity related issues that may have been associated with historic sample collection methods. No-purge sampling has been performed at the facility beginning with the October 20, 2015 sampling episode.

Upgradient Data, Table 1, Attachment B, to the November 2025 Statistical Evaluation Report (Appendix B.2) includes a summary of the most current background data. Any water quality results tagged with an asterisk is a statistical outlier and is excluded from use in calculating the Prediction Limits. The calculated Prediction Limits are summarized on Table 5.

SITE SPECIFIC GWPS

Review of the information included on Table 5 indicates that there are no compounds in the water table system with prediction limits that exceed the published IAC 567, Chapter 137 Statewide Standards. For all compounds the published IAC 567, Chapter 137 Statewide Standard are utilized as the GWPS (see Table 5).

STATISTICALLY SIGNIFICANT INCREASES (SSI)

The detected concentration of each compound is compared to the current site prediction limit for each respective compound calculated based on the background data set. A detected concentration for a compound that is in excess of the calculated site prediction limit is recorded as a Statistically Significant Increase (SSI) at detection monitoring wells.

Since the Prediction limit for VOC is set at the laboratory Reporting Level, any VOC detection is recorded as an SSI. Table 6 is a summary of all compounds at site monitoring wells that have exceeded a *current* year prediction limit in 2025. There were no verified prediction limit exceedances recorded in the current detection monitoring system wells, only in the assessment monitoring system wells.

Table 7 includes an on-going summary of compound detections that exceed the prediction limits (highlighted in light brown).

Exceedances of the Prediction Limit at a well that is in the Assessment Monitoring System is not an SSI, instead the exceedance is further evaluated by Confidence Interval Statistics.

Exceedance of the Prediction Limits for the current year is summarized on Table 1 and Table 6. A running summary of recorded Prediction Limit exceedances by year is included in Appendix E.

This report serves as notice to the operating record in accordance with IAC 567-113.10(5)c.

ASSESSMENT MONITORING SUMMARY

Assessment monitoring including the full Appendix II list has been performed at each well where a historic SSI is recorded. The on-going assessment monitoring is in accordance with requirements of IAC 567-113.10(6)"d"(2), which includes Appendix I plus all detected Appendix II compounds beyond the Appendix I list.

Compounds detected to date beyond the Appendix I list are limited to bis(2-ethylhexyl)phthalate and sulfide. The summary of assessment monitoring detections to date is presented in Appendix F. The full Appendix II sampling episodes are highlighted in green in the tables in Appendix F.

The full Appendix II sampling schedule is included on Table 2.

STATISTICALLY SIGNIFICANT LEVELS (SSL)

The compounds with detections that exceed site prediction limits (see summary in Tables 1 & 7) are utilized to calculate the Confidence Interval (the 95% lower confidence limits (LCL) and the 95% upper control limits (UCL)) in accordance with the 2009 Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities by US EPA. The 95% LCL values are compared to applicable GWPS. Any 95% LCL value that exceeds an applicable GWPS is recorded as an SSL. All wells with a recorded SSL required the plume of impact to be defined in horizontal and vertical directions and required completion of an Assessment of Corrective Measures (ACM).

The SSL Evaluation is based on data collected since 2015. The Confidence Intervals (95% LCL and 95% UCL) are calculated during each statistical evaluation based on the most recent four (4) data points. The 95% LCL evaluation is presented in Table 7. Any SSL would be highlighted in yellow on Table 7. SSL recorded to date are restricted to Corrective Action Well MW-5 (benzene and arsenic).

Based on completion of the remedy near MW-5, monitoring well MW-5 is designated as the Point of Compliance for Corrective Action Monitoring Well.

Note that cobalt had an apparent 95% LCL value that exceeded the GWPS in 2016 at MW-24. However, this single occurrence is not recorded as an SSL. The well head of MW-24 was found to be damaged and was allowing surface water to enter the well casing. The well head was repaired. The cobalt concentrations demonstrate that a consistent decline in the 95% LCL is recorded and is below the GWPS.

Monitoring Wells MW-7, MW-9, MW-24, MW-25, MW-26, MW-32, and MW-33 are retained in the Assessment Monitoring System based on the absence of SSL.

ASSESSMENT OF CORRECTIVE MEASURES (ACM)

On January 13, 2018, the water quality in the step-out wells MW-34, MW-35, MW-36, and MW-37 that surround MW-5 indicated that arsenic and benzene were undetected and are reported as less than the laboratory reporting limit.

Step out wells to MW-5:

Well	Date	Compound	Result (ug/L)	GWPS (ug/L)
MW-34	1/13/2018	Arsenic	<4	10.0
MW-34	1/13/2018	Benzene	<1	5.0
MW-35	1/13/2018	Arsenic	<4	10.0
MW-35	1/13/2018	Benzene	<1	5.0
MW-36	1/13/2018	Arsenic	<4	10.0
MW-36	1/13/2018	Benzene	<1	5.0
MW-37	1/13/2018	Arsenic	<4	10.0
MW-37	1/13/2018	Benzene	<1	5.0

The initial water quality collected from the step out wells confirmed that water quality for the compounds of concern are within established limits.

The horizontal impact near MW-5 was delineated and reported to IDNR on March 5, 2018 (Doc #91714).

An Assessment of Corrective Measures (ACM) was completed and submitted to IDNR on September 24, 2018 (Doc #93290). The ACM was approved in Permit Revision #8 dated August 22, 2019 (Doc #95760).

A groundwater cut-off line coupled with nine (9) vertical subsurface gas vents were constructed outside the waste boundary in the vicinity of MW-5 as the approved remedy (Figure 1). Construction Certification (Doc # 98814) was submitted to IDNR on October 29, 2020.

MW-5 is designated as the Corrective Action Monitoring Well. The ACM tile outlet (ACM-Tile 1) is also monitored as a Corrective Action Monitoring Point. Outflow from ACM Tile 1 is tested semi-annually for arsenic and the Appendix I VOC compounds. Discharge from the ACM Tile 1 passes through the Passively Engineered Conveyance System (PECS) to treat VOC impacted water (Figure 1).

No additional ACM Activities are required at this time.

CORRECTIVE MEASURES MONITORING PLAN (CAMP)

The evaluation of the Corrective Action Monitoring Well MW-5 is based on the Upper Confidence Limit (95% UCL), see the tables below (also Table 8 and Table 10). The 95% UCL values for arsenic and benzene currently remain above the GWPS (highlighted in green below), and MW-5 is required to remain in Corrective Action Monitoring.

Arsenic - Shallow Till/Fill System – MW-5

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L)
MW5	10/11/16	Arsenic	28.8	4.0	15.354	34.196	10.0
MW5	4/13/17	Arsenic	22.0	4.0	15.807	27.693	10.0
MW5	10/25/17	Arsenic	27.0	4.0	18.475	29.625	10.0
MW5	4/11/18	Arsenic	13.2	4.0	14.532	30.968	10.0
MW5	10/16/18	Arsenic	37.5	4.0	12.997	36.853	10.0
MW5	4/17/19	Arsenic	27.1	4.0	14.474	37.926	10.0
MW5	10/15/19	Arsenic	59.3	4.0	11.423	57.127	10.0
MW5	4/6/2020	Arsenic	28.5	4.0	20.614	55.586	10.0
MW5	10/13/2020	Arsenic	30.0	4.0	18.076	54.374	10.0
MW5	4/12/2021	Arsenic	56.2	4.0	24.074	62.926	10.0
MW5	10/6/2021	Arsenic	17.9	4.0	13.996	52.304	10.0
MW5	4/15/2022	Arsenic	5.3	4.0	1.805	52.895	10.0
MW5	10/25/2022	Arsenic	9.1	4.0	0.000	49.558	10.0
MW5	4/3/2023	Arsenic	21.4	4.0	4.613	22.237	10.0
MW5	10/16/2023	Arsenic	13.7	4.0	4.226	20.524	10.0
MW5	4/22/2024	Arsenic	15.0	4.0	8.829	20.771	10.0
MW5	10/7/2024	Arsenic	10.6	4.0	9.832	20.518	10.0
MW5	4/1/20525	Arsenic	11.3	4.0	10.235	15.065	10.0
MW5	10/13/2025	Arsenic	10.3	4.0	9.243	14.357	10.0

Benzene - Shallow Till/Fill System – MW-5

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L)
MW5	10/20/15	Benzene	6.7	1.0	6.316	7.164	5.0
MW5	4/11/16	Benzene	4.6	1.0	4.876	7.524	5.0
MW5	10/11/16	Benzene	5.7	1.0	4.698	7.397	5.0
MW5	4/13/17	Benzene	4.7	1.0	4.267	6.583	5.0
MW5	10/25/17	Benzene	6.2	1.0	4.384	6.216	5.0
MW5	4/11/18	Benzene	8.7	1.0	4.323	8.237	5.0
MW5	10/16/18	Benzene	5.9	1.0	4.399	8.351	5.0
MW5	4/17/19	Benzene	6.6	1.0	5.361	8.339	5.0
MW5	10/15/19	Benzene	5.6	1.0	5.056	8.344	5.0
MW5	4/6/2020	Benzene	5.6	1.0	5.370	6.480	5.0
MW5	10/13/2020	Benzene	6.3	1.0	5.430	6.620	5.0
MW5	4/12/2021	Benzene	5.7	1.0	5.404	6.196	5.0
MW5	10/6/2021	Benzene	4.5	1.0	4.634	6.407	5.0
MW5	4/15/2022	Benzene	6.0	1.0	4.697	6.553	5.0
MW5	10/25/2022	Benzene	5.4	1.0	4.638	6.162	5.0
MW5	4/3/2023	Benzene	6.5	1.0	4.588	6.612	5.0
MW5	10/16/2023	Benzene	4.5	1.0	4.588	6.612	5.0
MW5	4/22/2024	Benzene	3.7	1.0	3.609	6.441	5.0
MW5	10/7/2024	Benzene	5.2	1.0	3.579	6.371	5.0
MW5	4/1/20525	Benzene	7.2	1.0	3.388	6.912	5.0
MW5	10/13/2025	Benzene	7.0	1.0	3.834	7.716	5.0

ACM Tile 1 does not discharge impacted water to the ground surface (Table 11) and the PECS is demonstrated to be effective as all VOC at sampling point PECS-1 are undetected and reported as below the MRL (Table 11).

Additional Corrective Action Monitoring includes the on-going quarterly monitoring of Vents 19-27 (Table 12) for the % Lower Explosive Limits (LEL) and the annual monitoring of MW-5 for dissolved methane, ethane, ethene, and alkalinity and pH (Table 13).

Table 11, Table 12, and Table 13 to summarize the on-going Corrective Action Monitoring Plan (CAMP) results.

Section 4.0 Leachate Collection System Performance Evaluation

Leachate System Performance

Cell 1, Cell 2, and Cell NEX – Each of these lined disposal areas was constructed with leachate collection piping. Details on the leachate collection system are included on Figure 4.

Collected leachate is pumped to the above ground leachate storage tank. The tank has a capacity of approximately 15,000 gallons. When tank levels warrant, leachate is hauled to the City of Oelwein POTW for treatment and disposal. The treatment agreement with the City of Oelwein is included in Appendix G.1. Approximately 67,570 gallons of leachate were hauled to the City of Oelwein in 2025 (Appendix G.2). Leachate testing results from 2025 are included in Appendix G.3.

Leachate Head Monitoring Points

Figure 4 illustrates the locations of leachate head monitoring points.

Leachate head monitoring points LPZ-9 and LPZ-10 are located in the unlined “Old Landfill” Area.

Leachate head monitoring point North Manhole is located in the RCRA Lined Cell 2A Expansion Area.

Leachate head monitoring point South Manhole is located in the RCRA Lined Cell 1A/1D Expansion Area.

Leachate head monitoring point NEX SE Riser is located in the RCRA Lined Cell NEX Expansion Area.

Measurements from the leachate head monitoring points are included on Table 14. Measurements in 2025 showed consistent leachate thicknesses over the course of the year. Table 14A is included and summarizes the leachate measurements over time (since 2015).

The required frequency of measurements in the leachate head monitoring points was changed from quarterly to semi-annually in Special Provision X.11.c in Permit Amendment #2 dated August 14, 2025 (Doc #113637).

Leachate Line Cleaning

The leachate lines were cleaned in October, 2024. IAC 567-113.7(5)b(5) requires that the leachate system be cleaned every three (3) years at a minimum. The leachate lines should be cleaned again in 2027 in accordance with regulations.

Performance Evaluation

No modifications to the leachate collection system are recommended for next year.

Section 5.0 Gas Monitoring

Explosive gas monitoring per 113.9(2) and the approved GMSP was conducted quarterly during 2025. The required frequency of gas monitoring was changed from quarterly to semi-annually in Special Provision X.10.a in Permit Amendment #2 dated August 14, 2025 (Doc #113637).

Table 15 is attached and summarizes all monitoring at all locations for the current year. This data is also segregated into the subsurface perimeter and building monitoring points (Table 15A) and Gas Control and Recovery System Components (Table 15B). Table 15A and Table 15 B included a summary of all data over time (since 2015).

Figure 5 illustrates the locations of gas monitoring points.

Explosive gas concentrations were undetected or below regulatory action levels in facility structures (excluding gas control components) and in the subsurface at the facility property line during the referenced monitoring episodes.

Section 6.0 Recommendations

Continue semi-annual detection/assessment/corrective action monitoring in accordance with IAC 567, Chapter 113.10(5), 113.10(6), and 113.10(9) as summarized in Table 1 and Table 2.

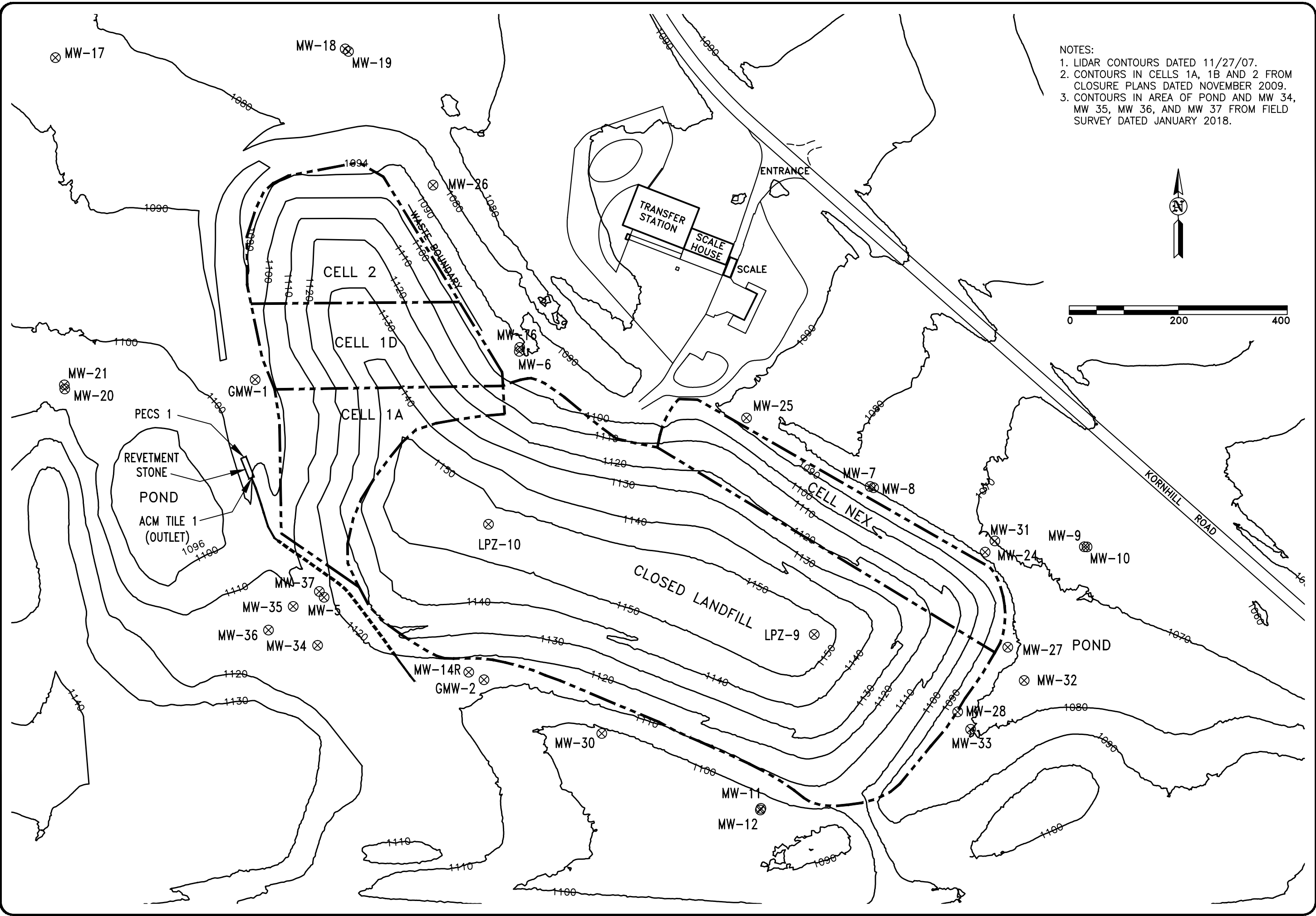
Sulfide testing will continue on a semi-annual basis at MW-5.

SSL continue to persist at monitoring well MW-5. MW-5 should remain the designated Point of Compliance Corrective Action Monitoring Well.

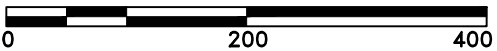
Leachate monitoring should continue in accordance with the Permit. The leachate collection lines should be cleaned in 2027.

Gas monitoring should continue in accordance with the Permit.

Figures



- NOTES:
1. LIDAR CONTOURS DATED 11/27/07.
 2. CONTOURS IN CELLS 1A, 1B AND 2 FROM CLOSURE PLANS DATED NOVEMBER 2009.
 3. CONTOURS IN AREA OF POND AND MW 34, MW 35, MW 36, AND MW 37 FROM FIELD SURVEY DATED JANUARY 2018.



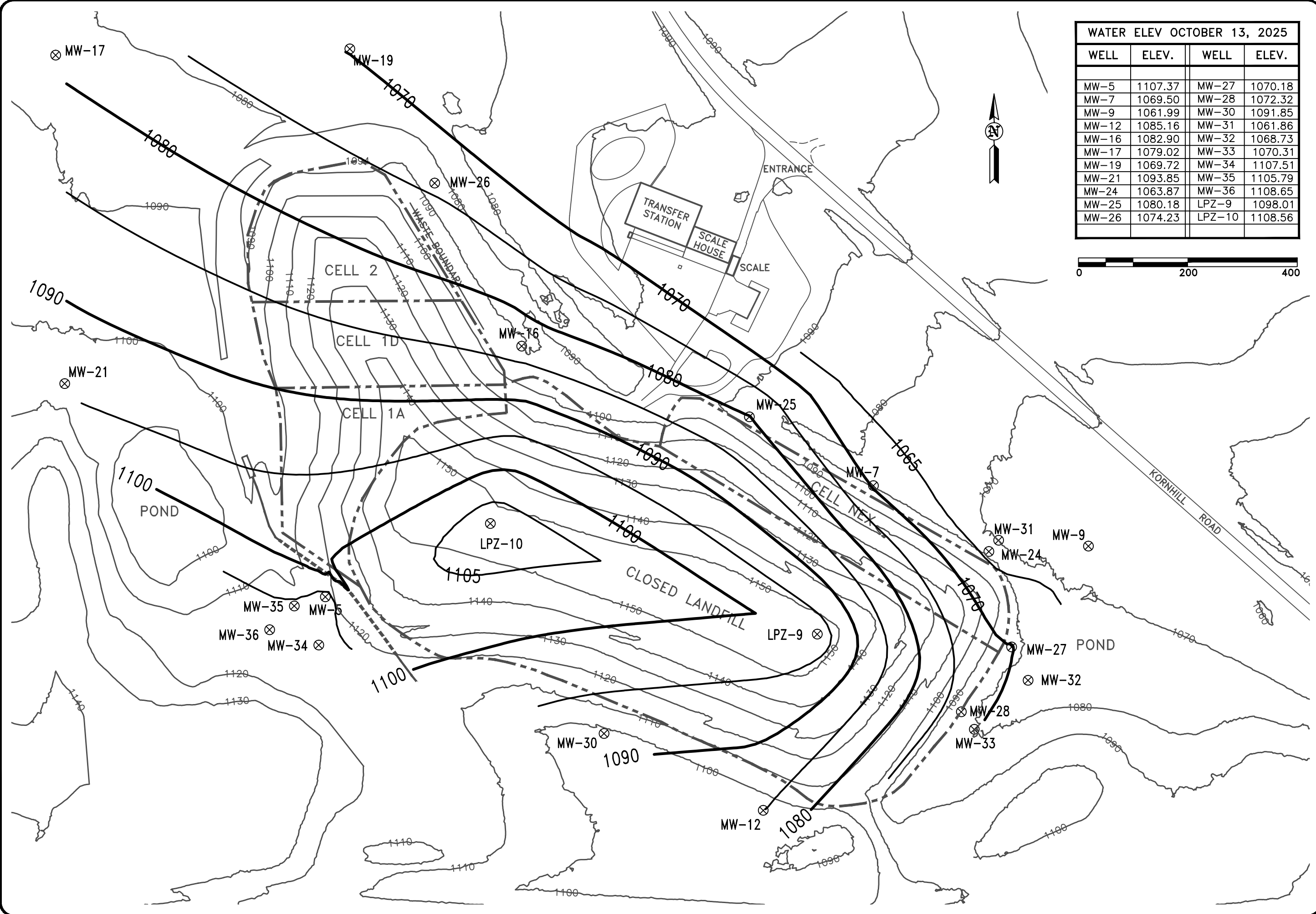
SITE PLAN
FAYETTE COUNTY SANITARY LANDFILL
FAYETTE, IOWA

HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146

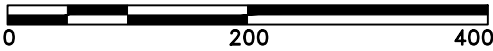


FIGURE: 1

REVISION	NO.	DATE
DRAWN	6041	1-17-26
DRA		



WATER ELEV OCTOBER 13, 2025			
WELL	ELEV.	WELL	ELEV.
MW-5	1107.37	MW-27	1070.18
MW-7	1069.50	MW-28	1072.32
MW-9	1061.99	MW-30	1091.85
MW-12	1085.16	MW-31	1061.86
MW-16	1082.90	MW-32	1068.73
MW-17	1079.02	MW-33	1070.31
MW-19	1069.72	MW-34	1107.51
MW-21	1093.85	MW-35	1105.79
MW-24	1063.87	MW-36	1108.65
MW-25	1080.18	LPZ-9	1098.01
MW-26	1074.23	LPZ-10	1108.56





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204 West Broad Street, P.O. Box 314
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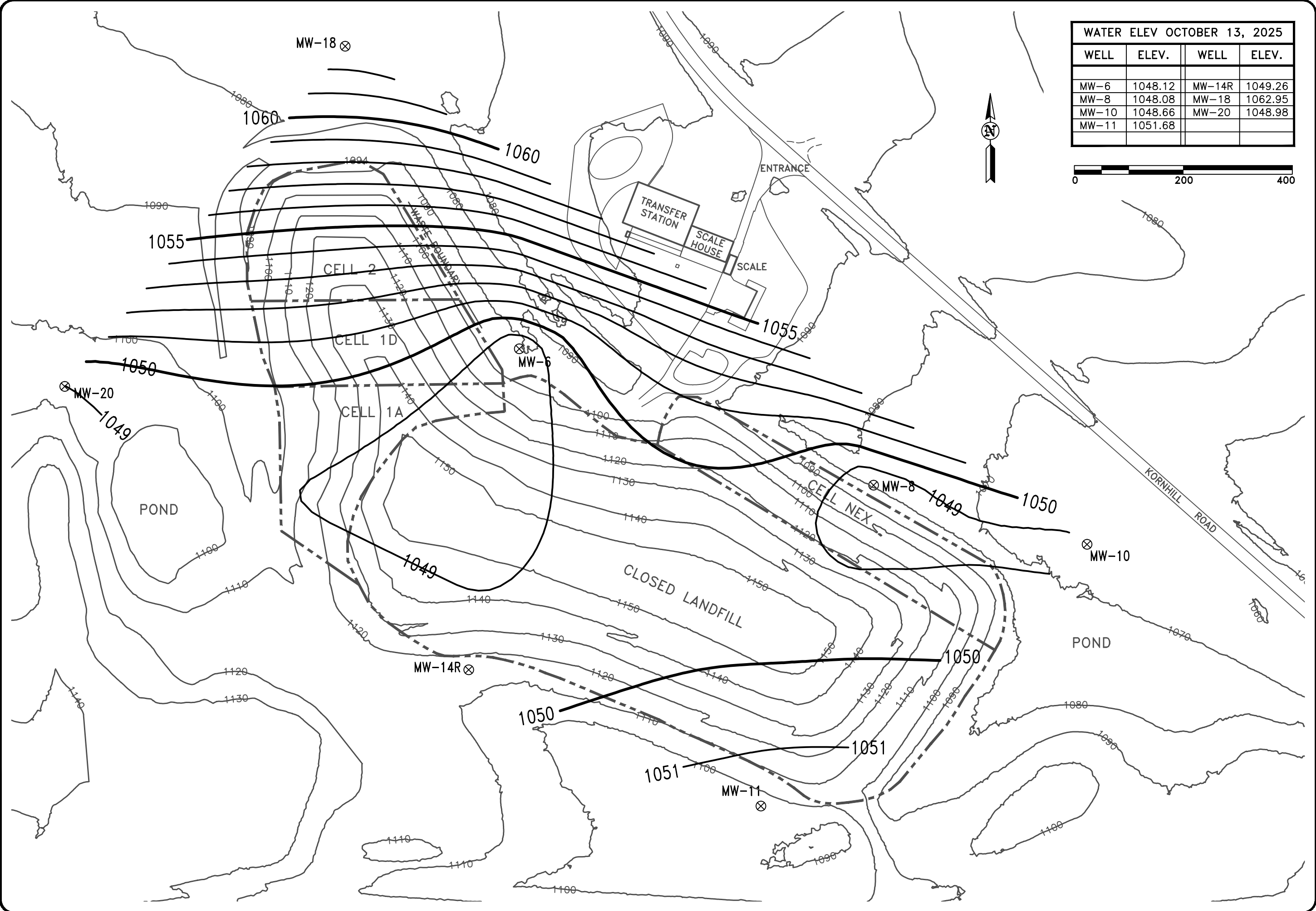
WATER TABLE CONTOUR MAP

FAYETTE COUNTY SANITARY LANDFILL

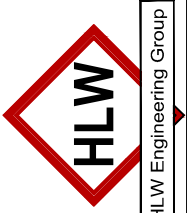
FAYETTE, IOWA

FIGURE: 2

REVISION	NO.	DATE
DRAWN	6041	1-17-26
DRA		



WATER ELEV OCTOBER 13, 2025			
WELL	ELEV.	WELL	ELEV.
MW-6	1048.12	MW-14R	1049.26
MW-8	1048.08	MW-18	1062.95
MW-10	1048.66	MW-20	1048.98
MW-11	1051.68		



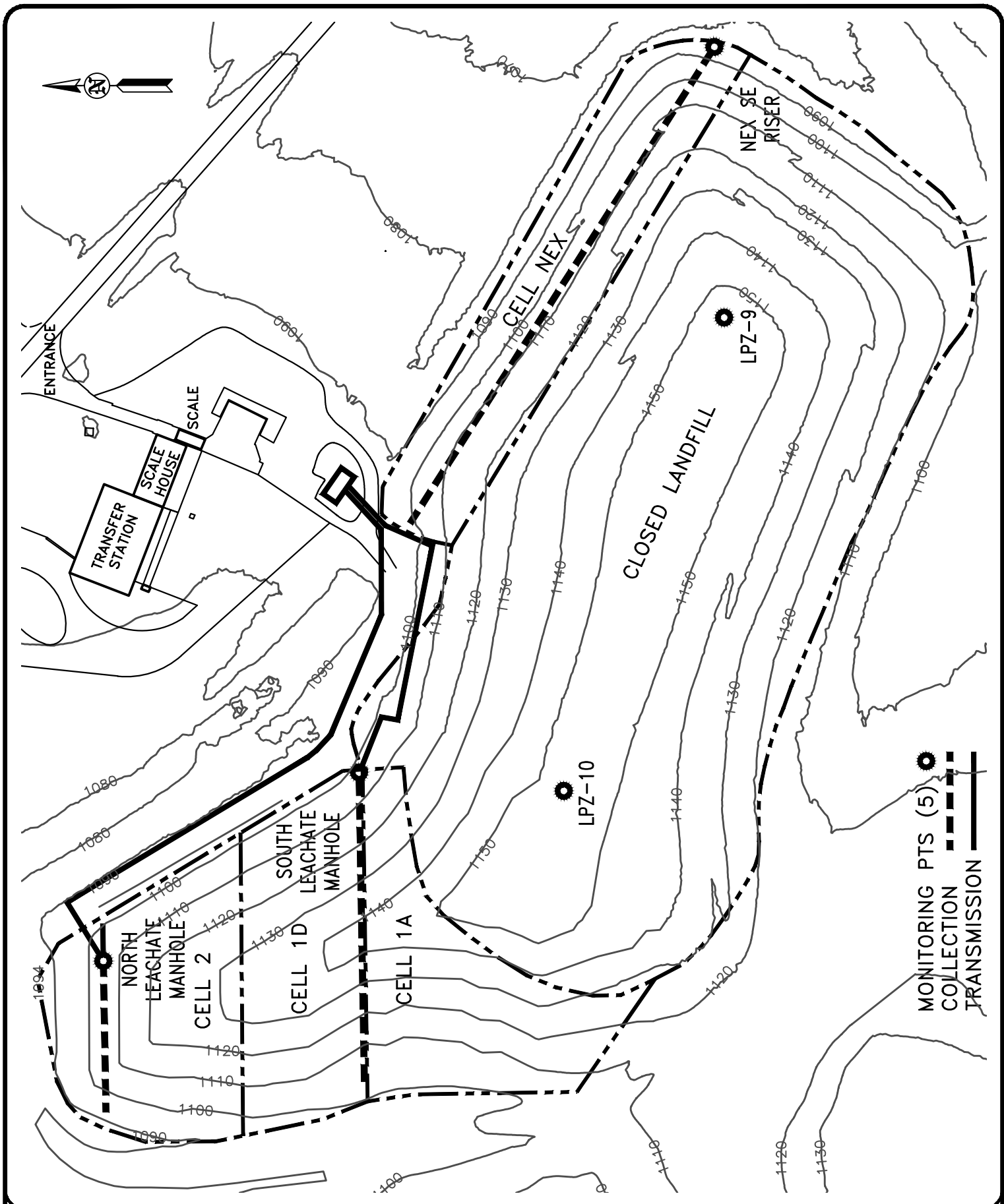
HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146

FIGURE: 3

BEDROCK AQUIFER CONTOUR MAP

FAYETTE COUNTY SANITARY LANDFILL
FAYETTE, IOWA

REVISION	NO.	DATE
DRAWN	6041	1-17-26
DRA		

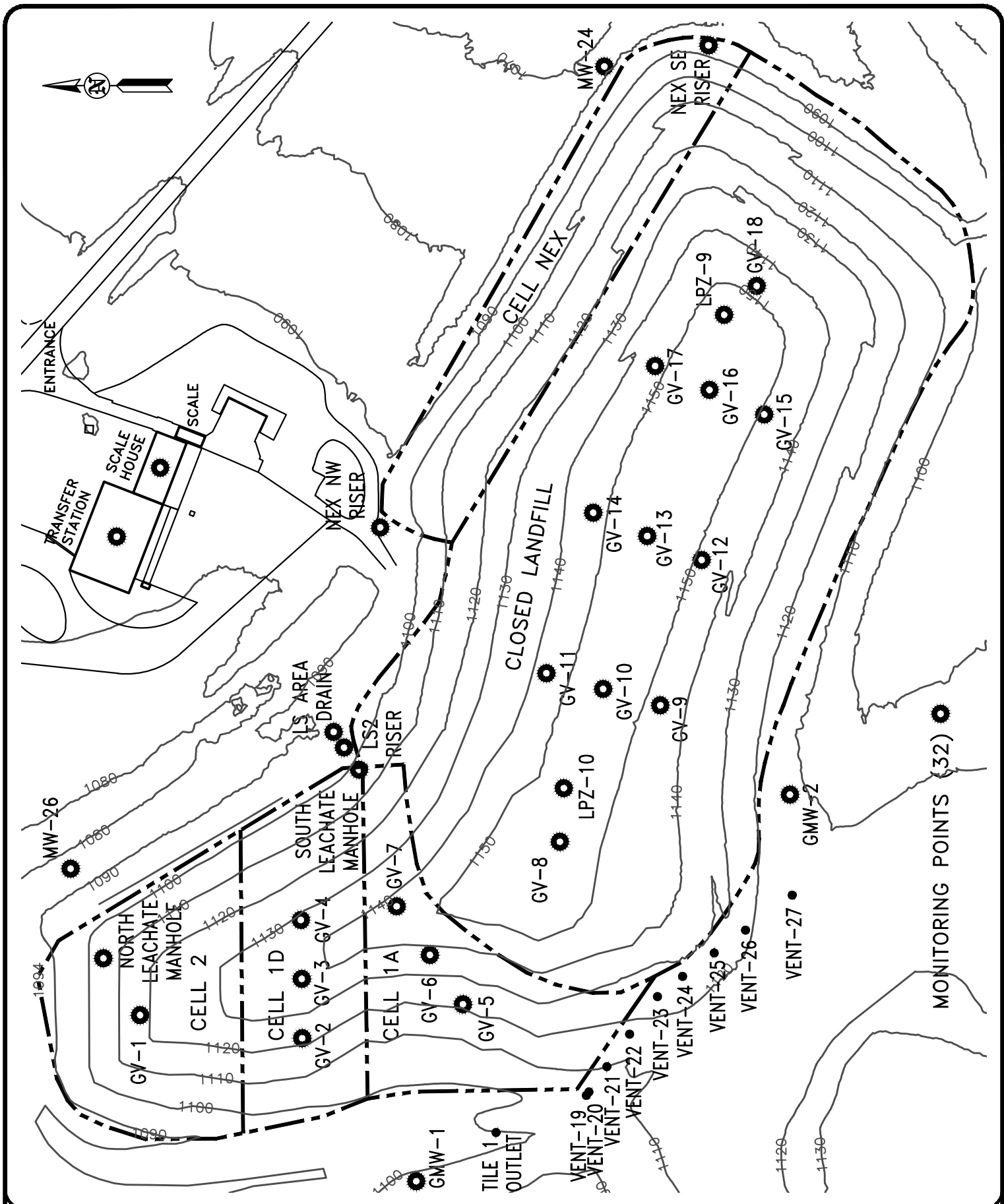


HLW Engineering Group

LEACHATE SYSTEM AND MONITORING POINTS FAYETTE COUNTY SANITARY LANDFILL FAYETTE, IOWA

FIGURE: 4

REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6041	DATE 1-17-26



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GAS MONITORING POINTS

FAYETTE COUNTY SANITARY LANDFILL
FAYETTE, IOWA

FIGURE: 5

REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6041	DATE 1-17-26

Table 1 – Monitoring Program Summary

Table 1
Monitoring Program Summary
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

Monitoring Well	Formation	Current Monitoring Program	Change for next sampling event	Constituents w/ SSI	Constituents w/ SSL	Total # of Samples in each monitoring program since October of 2014		
						Detection	Assessment	Corrective Action
MW-5	Glacial Till	Corrective Action - See Table 10 Remedy is in place	NC	arsenic, 1,1-dichloroethane, 1,4-dichlorobenzene, 2-butanone, acetone, benzene, chlorobenzene, chloroethane, cis-1,2-dichloroethylene, ethylbenzene, vinyl chloride, xylenes	arsenic, benzene	0	0	26
MW-7	Glacial Till	Assessment	NC	zinc	None	0	26	0
MW-9	Glacial Till	Assessment	NC	arsenic, barium, cobalt	None	0	25	0
MW-12	Glacial Till	Background	NC	None	None	25	0	0
MW-16	Glacial Till	Detection	NC	None	None	26	0	0
MW-17	Glacial Till	Background	NC	None	None	25	0	0
MW-21	Glacial Till	Background	NC	None	None	23	0	0
MW-24	Glacial Till	Assessment	NC	arsenic, barium, cobalt, nickel, benzene, 1,1-dichloroethane, vinyl chloride	None	0	23	0
MW-25	Glacial Till	Assessment	NC	None	None	0	25	0
MW-26	Glacial Till	Assessment	NC	cobalt	None	0	27	0
MW-32	Glacial Till	Assessment	NC	barium, cobalt	None	0	20	0
MW-33	Glacial Till	Assessment	NC	cobalt, nickel	None	0	20	0
ACM Tile 1	Glacial Till	Corrective Action	NC	None	None	0	0	11
PECS-1	Glacial Till	PECS Performance Monitoring	NC	None	None	12	0	0

* = not verified - verification sample is required

Table 2 – Monitoring Program Implementation Schedule

Table 2
Monitoring Program Implementation Schedule
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

Monitoring Well	Recent Sampling Dates and Constituents	Upcoming Sampling Dates and Constituents		Full Appendix II Sample Dates	
		April, 2026	October, 2026	Previously Collected	Next Event
MW-5	see Table 9	Appendix I ⁽¹⁾	Appendix I ^(1,3)	6/21/11, 4/18/12, 10/20/15, 10/13/20, 10/13/25	October, 2030
MW-7		Appendix I	Appendix I	4/24/13, 4/25/14, 10/20/15, 10/13/20, 10/13/25	October, 2030
MW-9		Appendix I	Appendix I	4/13/17, 4/11/18, 4/3/23	April, 2028
MW-12		Appendix I	Appendix I		N/A
MW-16		Appendix I	Appendix I	10/26/17, 4/11/18	N/A
MW-17		Appendix I	Appendix I		N/A
MW-21		Appendix I	Appendix I		N/A
MW-24		Appendix II	Appendix I	10/20/15, 4/11/16, 4/12/21	April, 2026
MW-25		Appendix I	Appendix I	4/13/17, 4/11/18, 4/3/23	April, 2028
MW-26		Appendix I	Appendix I	10/26/17, 4/11/18, 4/3/23	April, 2028
MW-32		Appendix I	Appendix I	10/6/21, 10/25/22	October, 2027
MW-33		Appendix I	Appendix I	10/25/22, 10/16/23	October, 2028
ACM Tile 1		Appendix I VOC ⁽²⁾	Appendix I VOC ⁽²⁾		N/A
PECS-1		Appendix I VOC	Appendix I VOC		N/A
Field Duplicate		Appendix I	Appendix I		N/A

⁽¹⁾ add sulfide

⁽²⁾ add arsenic

⁽³⁾ add methane, ethane, ethene

Table 3 – Monitoring Well Maintenance Performance Reevaluation Schedule

Table 3
Monitoring Well Maintenance and Performance Revaluation Schedule
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

Compliance with:	Monitoring Calendar Years									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
567 IAC 113.10(2)"f"(1) high and low water levels (biennial)	X	X	X	X	X	X	X	P	P	P
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths (biennial)		X		X		X		P		P
567 IAC 113.10(2)"f"(3) well depths (annual)	X	X	X	X	X	X	X	P	P	P
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry (biennial)		X		X	X	X		P		P
Waste separation from ground water 113.6(2)"l"	2X	2X	2X	2X	2X	2X	2X	2P	2P	2P

X = completed

P = Planned

Table 4 – Monitoring Well Maintenance Performance Reevaluation Summary

Table 4 Monitoring Well Maintenance and Performance Summary Annual Water Quality Report Fayette County Sanitary Landfill Permit No. 33-SDP-02-83C									
Well	Top of casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth Discrepancy (ft)	Most Recent Recharge Rate	
					4/1/2025	10/13/2025		4/22/2024	Change
MW-5	1118.65	1108.39	20.26	Groundwater Level (ft)	4.23	11.57	0.26	Full recovery in 6 hour	None percieved
				Groundwater Elevation (Ft MSL)	1114.42	1107.08			
				Measured Well Depth (ft)	20	20			
				Submerged (+) or Exposed screen (-)	6.03	-1.31			
MW-7	1084.37	1070.27	24.1	Groundwater Level (ft)	7.91	15	0	Full recovery in 3 hour	None percieved
				Groundwater Elevation (Ft MSL)	1076.46	1069.37			
				Measured Well Depth (ft)	24.1	24.1			
				Submerged (+) or Exposed screen (-)	6.19	-0.9			
MW-9	1069.53	1059.23	20.3	Groundwater Level (ft)	2.37	7.8	0.5	Full recovery in 2 hour	None percieved
				Groundwater Elevation (Ft MSL)	1067.16	1061.73			
				Measured Well Depth (ft)	19.8	19.8			
				Submerged (+) or Exposed screen (-)	7.93	2.5			
MW-12	1099.11	1084.23	24.88	Groundwater Level (ft)	7.9	14.19	0.03	Full recovery in 6 hour	None percieved
				Groundwater Elevation (Ft MSL)	1091.21	1084.92			
				Measured Well Depth (ft)	24.85	24.85			
				Submerged (+) or Exposed screen (-)	6.98	0.69			
MW-16	1094.27	1072.92	31.35	Groundwater Level (ft)	10.28	11.48	0.52	Full recovery in 24 hour	None percieved
				Groundwater Elevation (Ft MSL)	1083.99	1082.79			
				Measured Well Depth (ft)	30.83	30.83			
				Submerged (+) or Exposed screen (-)	11.07	9.87			
MW-17	1086.07	1065.04	31.03	Groundwater Level (ft)	7.01	7.47	0.03	Full recovery in 6 hour	None percieved
				Groundwater Elevation (Ft MSL)	1079.06	1078.6			
				Measured Well Depth (ft)	31	31			
				Submerged (+) or Exposed screen (-)	14.02	13.56			
MW-21	1107.23	1099.68	17.55	Groundwater Level (ft)	9.42	13.4	0	Full recovery in 6 hour	None percieved
				Groundwater Elevation (Ft MSL)	1097.81	1093.83			
				Measured Well Depth (ft)	17.55	17.55			
				Submerged (+) or Exposed screen (-)	-1.87	-5.85			
MW-24	1082.08	1070.43	21.65	Groundwater Level (ft)	14.74	18.21	0	Full recovery in 2 hour	None percieved
				Groundwater Elevation (Ft MSL)	1067.34	1063.87			
				Measured Well Depth (ft)	21.65	21.65			
				Submerged (+) or Exposed screen (-)	-3.09	-6.56			
MW-25	1089.00	1079	20	Groundwater Level (ft)	5.27	8.82	0	Full recovery in 4 hour	None percieved
				Groundwater Elevation (Ft MSL)	1083.73	1080.18			
				Measured Well Depth (ft)	20	20			
				Submerged (+) or Exposed screen (-)	4.73	1.18			
MW-26	1086.93	1076.98	19.95	Groundwater Level (ft)	10.27	12.7	0	Full recovery in 4 hour	None percieved
				Groundwater Elevation (Ft MSL)	1076.66	1074.23			
				Measured Well Depth (ft)	19.95	19.95			
				Submerged (+) or Exposed screen (-)	-0.32	-2.75			
MW-32	1078.35	1071.55	16.8	Groundwater Level (ft)	5.2	9.62	0	Full recovery in 1 hour	None percieved
				Groundwater Elevation (Ft MSL)	1073.15	1068.73			
				Measured Well Depth (ft)	16.8	16.8			
				Submerged (+) or Exposed screen (-)	1.6	-2.82			
MW-33	1082.11	1075.61	16.5	Groundwater Level (ft)	3.44	11.8	0	Full recovery in 2 hour	None percieved
				Groundwater Elevation (Ft MSL)	1078.67	1070.31			
				Measured Well Depth (ft)	16.5	16.5			
				Submerged (+) or Exposed screen (-)	3.06	-5.3			

Table 4A – Water Elevations Over Time

Table 4A
Historic Water Table Information
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

MW	TOP OF CASING	4/1/2025 DEPTH TO WATER	4/1/2025 WATER ELEVATION	10/13/2025 DEPTH TO WATER	10/13/2025 WATER ELEVATION	MAX DEPTH MEASUREMENT	MIN DEPTH MEASUREMENT
WATER ELEVATIONS							
MW-5	1118.94	4.23	1114.71	11.57	1107.37	11.57	4.23
MW-6	1094.63	46.98	1047.65	46.51	1048.12	46.98	46.51
MW-7	1084.5	7.91	1076.59	15	1069.50	15	7.91
MW-8	1083.37	35.81	1047.56	35.29	1048.08	35.81	35.29
MW-9	1069.79	2.37	1067.42	7.8	1061.99	7.8	2.37
MW-10	1070.34	21.91	1048.43	21.68	1048.66	21.91	21.68
MW-11	1099.28	47.71	1051.57	47.6	1051.68	47.71	47.6
MW-12	1099.35	7.9	1091.45	14.19	1085.16	14.19	7.9
MW-14R	1114.32			65.06	1049.26	65.06	65.06
MW-16	1094.38	10.28	1084.1	11.48	1082.90	11.48	10.28
MW-17	1086.49	7.01	1079.48	7.47	1079.02	7.47	7.01
MW-18	1076.9	13.62	1063.28	13.95	1062.95	13.95	13.62
MW-19	1077.06	4.22	1072.84	7.34	1069.72	7.34	4.22
MW-20	1108.01	59.44	1048.57	59.03	1048.98	59.44	59.03
MW-21	1107.25	9.42	1097.83	13.4	1093.85	13.4	9.42
MW-24	1082.08	14.74	1067.34	18.21	1063.87	18.21	14.74
MW-25	1089	5.27	1083.73	8.82	1080.18	8.82	5.27
MW-26	1086.93	10.27	1076.66	12.7	1074.23	12.7	10.27
MW-27	1083.5	9.97	1073.53	13.32	1070.18	13.32	9.97
MW-28	1083.5	8.2	1075.3	11.18	1072.32	11.18	8.2
OW-30	1101.77	4.92	1096.85			4.92	4.92
MW-31	1071.7	4.05	1067.65	9.84	1061.86	9.84	4.05
MW-32	1078.35	5.2	1073.15	9.62	1068.73	9.62	5.2
MW-33	1082.11	3.44	1078.67	11.8	1070.31	11.8	3.44
MW-34	1116.93	4.22	1112.71	9.42	1107.51	9.42	4.22
MW-35	1116.1	5.59	1110.51	10.31	1105.79	10.31	5.59
MW-36	1117.97	5.16	1112.81	9.32	1108.65	9.32	5.16
MW-37	1117.25	10.03	1107.22	11.82	1105.43	11.82	10.03

= Bedrock Well

= Water Table Well

= Water Table Well (deep in till)

2024 Water Elevation Measurement Data

MW	TOP OF CASING	4/22/2024 DEPTH TO WATER	4/22/2024 WATER ELEVATION	10/7/2024 DEPTH TO WATER	10/7/2024 WATER ELEVATION	MAX DEPTH MEASUREMENT	MIN DEPTH MEASUREMENT
WATER ELEVATIONS							
MW-5	1118.94	3.38	1115.56	13.19	1105.75	13.19	3.38
MW-6	1094.63	45.73	1048.9	47.5	1047.13	47.5	45.73
MW-7	1084.5	8.13	1076.37	17.89	1066.61	17.89	8.13
MW-8	1083.37	34.52	1048.85	36.25	1047.12	36.25	34.52
MW-9	1069.79	2.4	1067.39	10.85	1058.94	10.85	2.4
MW-10	1070.34	20.75	1049.59	27.71	1042.63	27.71	20.75
MW-11	1099.28	46.84	1052.44	48.69	1050.59	48.69	46.84
MW-12	1099.35	8.19	1091.16	18.8	1080.55	18.8	8.19
MW-14R	1114.32	64.37	1049.95	66.05	1048.27	66.05	64.37
MW-16	1094.38	9.32	1085.06	12.59	1081.79	12.59	9.32
MW-17	1086.49	6.97	1079.52	8.25	1078.24	8.25	6.97
MW-18	1076.9	12.95	1063.95	15.51	1061.39	15.51	12.95
MW-19	1077.06	4.14	1072.92	8.95	1068.11	8.95	4.14
MW-20	1108.01	58.37	1049.64	59.97	1048.04	59.97	58.37
MW-21	1107.25	12.25	1095	15.21	1092.04	15.21	12.25
MW-24	1082.08	14.44	1067.64	20.45	1061.63	20.45	14.44
MW-25	1089	6.42	1082.58	9.62	1079.38	9.62	6.42
MW-26	1086.93	9.71	1077.22	14.65	1072.28	14.65	9.71
MW-27	1083.5	9.76	1073.74	15.26	1068.24	15.26	9.76
MW-28	1083.5	7.95	1075.55	13.24	1070.26	13.24	7.95
OW-30	1101.77	3.64	1098.13	9.86	1091.91	9.86	3.64
MW-31	1071.7	4.28	1067.42	14.1	1057.60	14.1	4.28
MW-32	1078.35	5.17	1073.18	12.04	1066.31	12.04	5.17
MW-33	1082.11	3.3	1078.81	15.2	1066.91	15.2	3.3
MW-34	1116.93	4.81	1112.12	11.13	1105.80	11.13	4.81
MW-35	1116.1	6.35	1109.75	11.81	1104.29	11.81	6.35
MW-36	1117.97	5.65	1112.32	10.74	1107.23	10.74	5.65
MW-37	1117.25	9.45	1107.8	13.26	1103.99	13.26	9.45

= Bedrock Well

= Water Table Well

= Water Table Well (deep in till)

2023 Water Elevation Measurement Data

MW	TOP OF CASING	4/3/2023 DEPTH TO WATER	4/3/2023 WATER ELEVATION	10/16/2023 DEPTH TO WATER	10/16/2023 WATER ELEVATION	MAX DEPTH MEASUREMENT	MIN DEPTH MEASUREMENT
WATER ELEVATIONS							
MW-5	1118.94	3.22	1115.72	12.08	1106.86	12.08	3.22
MW-6	1094.63	45.58	1049.05	48.18	1046.45	48.18	45.58
MW-7	1084.5	8.1	1076.4	17.2	1067.30	17.2	8.1
MW-8	1083.37	34.38	1048.99	36.89	1046.48	36.89	34.38
MW-9	1069.79	2.27	1067.52	11.03	1058.76	11.03	2.27
MW-10	1070.34	20.55	1049.79	23.3	1047.04	23.3	20.55
MW-11	1099.28	46.75	1052.53	49.39	1049.89	49.39	46.75
MW-12	1099.35	7.73	1091.62	17.04	1082.31	17.04	7.73
MW-14R	1114.32	65.78	1048.54	66.77	1047.55	66.77	65.78
MW-16	1094.38	8.91	1085.47	12.29	1082.09	12.29	8.91
MW-17	1086.49	6.76	1079.73	7.9	1078.59	7.9	6.76
MW-18	1076.9	12.97	1063.93	14.95	1061.95	14.95	12.97
MW-19	1077.06	4.25	1072.81	8.58	1068.48	8.58	4.25
MW-20	1108.01	58.25	1049.76	60.63	1047.38	60.63	58.25
MW-21	1107.25	5.06	1102.19	16.7	1090.55	16.7	5.06
MW-24	1082.08	14.34	1067.74	20.64	1061.44	20.64	14.34
MW-25	1089	6.46	1082.54	6.92	1082.08	6.92	6.46
MW-26	1086.93	9.45	1077.48	13.45	1073.48	13.45	9.45
MW-27	1083.5	9.18	1074.32	15.88	1067.62	15.88	9.18
MW-28	1083.5	7.36	1076.14	14	1069.50	14	7.36
OW-30	1101.77			11.5	1090.27	11.5	11.5
MW-31	1071.7	4.19	1067.51	13.68	1058.02	13.68	4.19
MW-32	1078.35	4.74	1073.61	12.69	1065.66	12.69	4.74
MW-33	1082.11	3.19	1078.92	15.09	1067.02	15.09	3.19
MW-34	1116.93	4.3	1112.63	11.47	1105.46	11.47	4.3
MW-35	1116.1	5.95	1110.15	11.73	1104.37	11.73	5.95
MW-36	1117.97	5.05	1112.92	11.03	1106.94	11.03	5.05
MW-37	1117.25	9.61	1107.64	14.56	1102.69	14.56	9.61

= Bedrock Well

= Water Table Well

= Water Table Well (deep in till)

2022 Water Elevation Measurement Data

MW	TOP OF CASING	4/15/2022 DEPTH TO WATER	4/15/2022 WATER ELEVATION	10/25/2022 DEPTH TO WATER	10/25/2022 WATER ELEVATION	MAX DEPTH MEASUREMENT	MIN DEPTH MEASUREMENT
WATER ELEVATIONS							
MW-5	1118.94	4.55	1114.39	13.83	1105.11	13.83	4.55
MW-6	1094.63	43.91	1050.72	47.4	1047.23	47.4	43.91
MW-7	1084.5	8.17	1076.33	15.32	1069.18	15.32	8.17
MW-8	1083.37	32.76	1050.61	36.19	1047.18	36.19	32.76
MW-9	1069.79	2.72	1067.07	9.25	1060.54	9.25	2.72
MW-10	1070.34	19.13	1051.21	22.51	1047.83	22.51	19.13
MW-11	1099.28	45.31	1053.97	48.48	1050.80	48.48	45.31
MW-12	1099.35	8.05	1091.3	14.69	1084.66	14.69	8.05
MW-14R	1114.32	64.09	1050.23	68.42	1045.90	68.42	64.09
MW-16	1094.38	8.69	1085.69	12.79	1081.59	12.79	8.69
MW-17	1086.49	7.01	1079.48	7.8	1078.69	7.8	7.01
MW-18	1076.9	12.22	1064.68	15.08	1061.82	15.08	12.22
MW-19	1077.06	4.16	1072.9	8.47	1068.59	8.47	4.16
MW-20	1108.01	56.82	1051.19	59.86	1048.15	59.86	56.82
MW-21	1107.25	8.48	1098.77	16.42	1090.83	16.42	8.48
MW-24	1082.08	14.29	1067.79	19.65	1062.43	19.65	14.29
MW-25	1089	6.62	1082.38	9.5	1079.50	9.5	6.62
MW-26	1086.93	10.19	1076.74	13.82	1073.11	13.82	10.19
MW-27	1083.5	9.27	1074.23	14.5	1069.00	14.5	9.27
MW-28	1083.5	6.93	1076.57	12.42	1071.08	12.42	6.93
OW-30	1101.77	5.00	1096.77	10.21	1091.56	10.21	5
MW-31	1071.7	4.14	1067.56	11.26	1060.44	11.26	4.14
MW-32	1078.35	4.86	1073.49	11.17	1067.18	11.17	4.86
MW-33	1082.11	4.1	1078.01	12.3	1069.81	12.3	4.1
MW-34	1116.93	4.46	1112.47	11.19	1105.74	11.19	4.46
MW-35	1116.1	6.24	1109.86	12.03	1104.07	12.03	6.24
MW-36	1117.97	5.5	1112.47	11.05	1106.92	11.05	5.5
MW-37	1117.25	10.16	1107.09	13.88	1103.37	13.88	10.16

= Bedrock Well

= Water Table Well

= Water Table Well (deep in till)

2021 Water Elevation Measurement Data

MW	TOP OF CASING	4/12/2021 DEPTH TO WATER	4/12/2021 WATER ELEVATION	10/6/2021 DEPTH TO WATER	10/6/2021 WATER ELEVATION	MAX DEPTH MEASUREMENT	MIN DEPTH MEASUREMENT
WATER ELEVATIONS							
MW-5	1118.94	4.95	1113.99	11.8	1107.14	11.8	4.95
MW-6	1094.63	44.85	1049.78	45.64	1048.99	45.64	44.85
MW-7	1084.5	8.15	1076.35	11.7	1072.80	11.7	8.15
MW-8	1083.37	33.78	1049.59	34.47	1048.90	34.47	33.78
MW-9	1069.79	2.66	1067.13	6.29	1063.50	6.29	2.66
MW-10	1070.34	18.89	1051.45	20.81	1049.53	20.81	18.89
MW-11	1099.28	45.96	1053.32	46.91	1052.37	46.91	45.96
MW-12	1099.35	8.28	1091.07	10.59	1088.76	10.59	8.28
MW-14R	1114.32	63.57	1050.75	64.37	1049.95	64.37	63.57
MW-16	1094.38	8.82	1085.56	10.89	1083.49	10.89	8.82
MW-17	1086.49	7.16	1079.33	7.34	1079.15	7.34	7.16
MW-18	1076.9	12.54	1064.36	13.12	1063.78	13.12	12.54
MW-19	1077.06	4.03	1073.03	5.88	1071.18	5.88	4.03
MW-20	1108.01	57.65	1050.36	58.28	1049.73	58.28	57.65
MW-21	1107.25	5.87	1101.38	13.03	1094.22	13.03	5.87
MW-24	1082.08	14.46	1067.62	17.25	1064.83	17.25	14.46
MW-25	1089	6.7	1082.3	8.22	1080.78	8.22	6.7
MW-26	1086.93	10.21	1076.72	12.19	1074.74	12.19	10.21
MW-27	1083.5	9.31	1074.19	11.69	1071.81	11.69	9.31
MW-28	1083.5	6.89	1076.61	9.41	1074.09	9.41	6.89
OW-30	1101.77	3.46	1098.31	5.78	1095.99	5.78	3.46
MW-31	1071.7	4.2	1067.5	7.9	1063.80	7.9	4.2
MW-32	1078.35	4.87	1073.48	7.44	1070.91	7.44	4.87
MW-33	1082.11	3.07	1079.04	5.92	1076.19	5.92	3.07
MW-34	1116.93	4.62	1112.31	9.17	1107.76	9.17	4.62
MW-35	1116.1	6.47	1109.63	10.51	1105.59	10.51	6.47
MW-36	1117.97	5.25	1112.72	9.41	1108.56	9.41	5.25
MW-37	1117.25	10.01	1107.24	12.39	1104.86	12.39	10.01

= Bedrock Well

= Water Table Well

= Water Table Well (deep in till)

2020 Water Elevation Measurement Data

MW	TOP OF CASING	4/6/2020 DEPTH TO WATER	4/6/2020 WATER ELEVATION	10/13/2020 DEPTH TO WATER	10/13/2020 WATER ELEVATION	MAX DEPTH MEASUREMENT	MIN DEPTH MEASUREMENT
WATER ELEVATIONS							
MW-5	1118.94	3.38	1115.56	11.5	1107.44	11.5	3.38
MW-6	1094.63	43.73	1050.9	47.03	1047.60	47.03	43.73
MW-7	1084.5	8.25	1076.25	11.75	1072.75	11.75	8.25
MW-8	1083.37	32.44	1050.93	35.86	1047.51	35.86	32.44
MW-9	1069.79	2.66	1067.13	6.94	1062.85	6.94	2.66
MW-10	1070.34	18.82	1051.52	21.91	1048.43	21.91	18.82
MW-11	1099.28	45.03	1054.25	47.89	1051.39	47.89	45.03
MW-12	1099.35	8.24	1091.11	11.51	1087.84	11.51	8.24
MW-14R	1114.32	63.56	1050.76	65.52	1048.80	65.52	63.56
MW-16	1094.38	8.25	1086.13	11.04	1083.34	11.04	8.25
MW-17	1086.49	7.15	1079.34	7.71	1078.78	7.71	7.15
MW-18	1076.9	12.4	1064.5	14.25	1062.65	14.25	12.4
MW-19	1077.06	3.98	1073.08	6.48	1070.58	6.48	3.98
MW-20	1108.01	56.55	1051.46	59.47	1048.54	59.47	56.55
MW-21	1107.42	5.42	1102	15.01	1092.41	15.01	5.42
MW-24	1082.08	14.21	1067.87	17.5	1064.58	17.5	14.21
MW-25	1089	6.83	1082.17	8.45	1080.55	8.45	6.83
MW-26	1086.93	9.92	1077.01	12.18	1074.75	12.18	9.92
MW-27	1083.5	9.03	1074.47	12.35	1071.15	12.35	9.03
MW-28	1083.5	6.55	1076.95	10.29	1073.21	10.29	6.55
OW-30	1101.77	3.23	1098.54	6.81	1094.96	6.81	3.23
MW-31	1071.7	4.2	1067.5	8.19	1063.51	8.19	4.2
MW-32	1078.35	4.7	1073.65	8.52	1069.83	8.52	4.7
MW-33	1082.11	3.27	1078.84	8.03	1074.08	8.03	3.27
MW-34	1116.93	4.27	1112.66	9.07	1107.86	9.07	4.27
MW-35	1116.1	5.42	1110.68	10.38	1105.72	10.38	5.42
MW-36	1117.97	4.7	1113.27	9.42	1108.55	9.42	4.7
MW-37	1117.25	7.24	1110.01	12.03	1105.22	12.03	7.24

= Bedrock Well

= Water Table Well

= Water Table Well (deep in till)

2015 Water Elevation Measurement Data

MW	TOP OF CASING	Jan-15 DEPTH TO WATER	Jan-15 WATER ELEVATION	Feb-15 DEPTH TO WATER	Feb-15 WATER ELEVATION	Mar-15 DEPTH TO WATER	Mar-15 WATER ELEVATION	Apr-15 DEPTH TO WATER	Apr-15 WATER ELEVATION	May-15 DEPTH TO WATER	May-15 WATER ELEVATION	Jun-15 DEPTH TO WATER	Jun-15 WATER ELEVATION	Jul-15 DEPTH TO WATER	Jul-15 WATER ELEVATION	Aug-15 DEPTH TO WATER	Aug-15 WATER ELEVATION	Sep-15 DEPTH TO WATER	Sep-15 WATER ELEVATION	Oct-15 DEPTH TO WATER	Oct-15 WATER ELEVATION	Nov-15 DEPTH TO WATER	Nov-15 WATER ELEVATION	Dec-15 DEPTH TO WATER	Dec-15 WATER ELEVATION	MAX DEPTH MEASUREMENT	MIN DEPTH MEASUREMENT
WATER ELEVATIONS																											
MW-5	1118.94	10.6	1108.34	10.6	1108.34	10.1	1108.84	5	1113.94	5.55	1113.39	6.35	1112.59	6.35	1112.59	6.5	1112.44	6.2	1112.74	11.17	1107.77	6.1	1112.84	6.2	1112.74	11.17	5
MW-6	1094.63	45.7	1048.93	46.1	1048.53	45.8	1048.83	46.77	1047.86	45.5	1049.13	44.1	1050.53	44.1	1050.53	44.6	1050.03	44.1	1050.53	47.25	1047.38	43.9	1050.73	44.1	1050.53	47.25	43.9
MW-7	1084.5	9.2	1075.3	9.1	1075.4	9.3	1075.2	8.34	1076.16	7.9	1076.6	9.6	1074.9	9.6	1074.9	8.9	1075.6	8.6	1075.9	11.34	1073.16	8.2	1076.3	8.6	1075.9	11.34	7.9
MW-8	1083.37	35.8	1047.57	35.6	1047.77	35.6	1047.77	35.57	1047.8	34.29	1049.08	32.9	1050.47	32.9	1050.47	33.1	1050.27	32.7	1050.67	36.05	1047.32	32.5	1050.87	32.6	1050.77	36.05	32.5
MW-9	1069.79	4.5	1065.29	4.9	1064.89	5.1	1064.69	2.76	1067.03	2.55	1067.24	3.65	1066.14	3.65	1066.14	4.2	1065.59	3.9	1065.89	7.4	1062.39	3.6	1066.19	3.6	1066.19	7.4	2.55
MW-10	1070.34	NR	NR	22.8	1047.54	22.6	1047.74	21.43	1048.91	20.26	1050.08	19.05	1051.29	19.05	1051.29	20.6	1049.74	20.6	1049.74	22.28	1048.06	20.2	1050.14	19.8	1050.54	22.8	19.05
MW-11	1099.28	48.2	1051.08	48.3	1050.98	48.1	1051.18	47.52	1051.76	46.25	1053.03	45.3	1053.98	45.3	1053.98	45.8	1053.48	45.9	1053.38	48.25	1051.03	45.3	1053.98	45.2	1054.08	48.3	45.2
MW-12	1099.35	8.7	1090.65	8.8	1090.55	8.6	1090.75	8.47	1090.88	8.18	1091.17	9.55	1089.8	9.55	1089.8	8.4	1090.95	8.2	1091.15	11.23	1088.12	7.9	1091.45	8.4	1090.95	11.23	7.9
MW-14R	1114.32	63.6	1050.72	63.4	1050.92	63.3	1051.02	65.45	1048.87	64.15	1050.17	62.8	1051.52	62.8	1051.52	62.8	1051.52	62.6	1051.72	65.93	1048.39	62.3	1052.02	62.4	1051.92	65.93	62.3
MW-16	1094.38	10.2	1084.18	10.4	1083.98	10.2	1084.18	10.26	1084.12	9.55	1084.83	9.6	1084.78	9.6	1084.78	9.6	1084.78	9.3	1085.08	12.15	1082.23	8.7	1085.68	9.1	1085.28	12.15	8.7
MW-17	1086.49	7.7	1078.79	7.8	1078.69	7.7	1078.79	6.5	1079.99	6.27	1080.22	6.65	1079.84	6.65	1079.84	6.7	1079.79	6.8	1079.69	8.33	1078.16	6.4	1080.09	6.5	1079.99	8.33	6.27
MW-18	1076.9	14.2	1062.7	14.6	1062.3	14.4	1062.5	13.6	1063.3	13.1	1063.8	12.05	1064.85	12.05	1064.85	12.6	1064.3	12.4	1064.5	14.84	1062.06	12.6	1064.3	12.4	1064.5	14.84	12.05
MW-19	1077.06	4.4	1072.66	4.6	1072.46	4.3	1072.76	3.48	1073.58	3.31	1073.75	4	1073.06	4	1073.06	4	1073.06	4.2	1072.86	6.64	1070.42	4	1073.06	4	1073.06	6.64	3.31
MW-20	1108.01	59	1049.01	59.3	1048.71	59.6	1048.41	59.48	1048.53	58.22	1049.79	56.94	1051.07	56.94	1051.07	57.2	1050.81	57.4	1050.61	59.85	1048.16	57.5	1050.51	57.2	1050.81	59.85	56.94
MW-21	1107.42	11.2	1096.22	11.4	1096.02	11.1	1096.32	5.41	1102.01	6.5	1100.92	7.6	1099.82	7.6	1099.82	8.4	1099.02	8.1	1099.32	15.4	1092.02	8.1	1099.32	7.8	1099.62	15.4	5.41
MW-22		7.6		7.8		7.9		7.05		7.08						5.2		4.9			4.2			4.6		7.9	4.2
MW-24	1082.08	14.6	1067.48	14.8	1067.28	14.4	1067.68	13.22	1068.86	12.96	1069.12	14.3	1067.78	14.3	1067.78	13.8	1068.28	13.6	1068.48	16.21	1065.87	13.3	1068.78	13.8	1068.28	16.21	12.96
MW-25	1089	7.6	1081.4	7.8	1081.2	7.8	1081.2	6.85	1082.15	6.42	1082.58	7.2	1081.8	7.2	1081.8	6.9	1082.1	6.7	1082.3	8.39	1080.61	6.2	1082.8	6.6	1082.4	8.39	6.2
MW-26	1086.93	11.7	1075.23	11.6	1075.33	11.6	1075.33	10.07	1076.86	10.06	1076.87	11.2	1075.73	11.2	1075.73	11.2	1075.73	11.2	1075.73	12.7	1074.23	11.1	1075.83	11.3	1075.63	12.7	10.06
MW-27	1083.5	10	1073.5	10.1	1073.4	10.6	1072.9	9.38	1074.12	9.12	1074.38	9.7	1073.8	9.7	1073.8	9.9	1073.6	9.6	1073.9	12.6	1070.9	9.4	1074.1	9.6	1073.9	12.6	9.12
MW-28	1083.5	8.3	1075.2	7.9	1075.6	8.2	1075.3	7.15	1076.35	6.65	1076.85	7.3	1076.2	7.3	1076.2	7.4	1076.1	7.2	1076.3	10.45	1073.05	7.2	1076.3	7.3	1076.2	10.45	6.65
OW-30	1101.77	5.8	1095.97	5.9	1095.87	6.2	1095.57	5.6	1096.17	4.2	1097.57	4.05	1097.72	4.05	1097.72	4.4	1097.37	4.4	1097.37	8.22	1093.55	4.1	1097.67	4.3	1097.47	8.22	4.05

Table 5 – Background and GWPS Summary

Table 5
Background and GWPS Summary
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

Interwell Background/(MW-12, MW-17, and MW-21)

Inorganics - Appendix I										
Constituent	Units	Model Type	Samples - N	Detections	Mean	SD	Prediction Limit	Confidence	GWPS	Source
Antimony (Sb)	µg/l	nonparametric	61	0			2.0000	0.99	6	SS
Arsenic (As)	µg/l	nonparametric	63	0			4.0000	0.99	10	SS
Barium (Ba)	µg/l	lognormal	67	67	4.5478	0.4383	270.5859		2000	SS
Beryllium (Be)	µg/l	nonparametric	61	0			4.0000	0.99	4	SS
Cadmium (Cd)	µg/l	nonparametric	67	0			0.8000	0.99	5	SS
Chromium (Cr)	µg/l	nonparametric	67	2			8.0000	0.99	100	SS
Cobalt (Co)	µg/l	nonparametric	62	3			0.7000	0.99	2.1	SS
Copper (Cu)	µg/l	nonparametric	63	3			7.9000	0.99	1300	SS
Lead (Pb)	µg/l	nonparametric	63	0			4.0000	0.99	15	SS
Nickel (Ni)	µg/l	nonparametric	62	2			11.6000	0.99	100	SS
Selenium (Se)	µg/l	nonparametric	67	1			4.0000	0.99	50	SS
Silver (Ag)	µg/l	nonparametric	61	0			4.0000	0.99	100	SS
Thallium (Tl)	µg/l	nonparametric	62	0			2.0000	0.99	2	SS
Vanadium (V)	µg/l	nonparametric	67	0			20.0000	0.99	35	SS
Zinc (Zn)	µg/l	nonparametric	66	7			20.8000	0.99	2000	SS
VOC - Appendix I										
Constituent	Units	Model Type	Samples - N	Detections	Mean	SD	Prediction Limit	Confidence	GWPS	Source
All	µg/l	DQR	67	0	<1	<1	<1	<1	various	SS

= Prediction limit exceeds the GWPS. A Site-Specific GWPS is warranted

Table 6 – Summary of Detections

Table 6
Summary of Well/Detected Constituent Pairs that Exceed the Prediction Limit
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

Well	Constituent	Date	Most recent result (ug/L)	Background Standard (ug/L)	GWPS (ug/L)	Monitoring Program
MW-5	arsenic	4/1/2025	11.3	4.0	10	Corrective Action Well
MW-5	arsenic	10/13/2025	10.3	4.0	10	Corrective Action Well
MW-5	1,1-dichloroethane	4/1/2025	9.8	1.0	140	Corrective Action Well
MW-5	1,1-dichloroethane	10/13/2025	4.3	1.0	140	Corrective Action Well
MW-5	1,4-dichlorobenzene	4/1/2025	1.2	1.0	75	Corrective Action Well
MW-5	1,4-dichlorobenzene	10/13/2025	1.1	1.0	75	Corrective Action Well
MW-5	2-butanone	4/1/2025	12.6	10.0	4000	Corrective Action Well
MW-5	acetone	4/1/2025	217.0	10.0	6300	Corrective Action Well
MW-5	benzene	4/1/2025	7.2	1.0	5	Corrective Action Well
MW-5	benzene	10/13/2025	7.0	1.0	5	Corrective Action Well
MW-5	chlorobenzene	4/1/2025	2.0	1.0	100	Corrective Action Well
MW-5	chlorobenzene	10/13/2025	1.6	1.0	100	Corrective Action Well
MW-5	chloroethane	4/1/2025	8.5	1.0	2800	Corrective Action Well
MW-5	chloroethane	10/13/2025	7.9	1.0	2800	Corrective Action Well
MW-5	cis-1,2-DCE	4/1/2025	2.1	1.0	70	Corrective Action Well
MW-5	cis-1,2-DCE	10/13/2025	2.0	1.0	70	Corrective Action Well
MW-5	ethylbenzene	4/1/2025	6.7	1.0	700	Corrective Action Well
MW-5	ethylbenzene	10/13/2025	2.6	1.0	700	Corrective Action Well
MW-5	vinyl chloride	4/1/2025	1.3	1.0	2	Corrective Action Well
MW-5	xylenes	4/1/2025	2.2	2.0	10000	Corrective Action Well
MW-7	Zinc	10/13/2025	23.2	20.8	2000	Assessment Monitoring Well
MW-9	arsenic	4/1/2025	5.9	4.0	10	Assessment Monitoring Well
MW-9	arsenic	10/13/2025	7.0	4.0	10	Assessment Monitoring Well
MW-9	barium	4/1/2025	559	271.1	2000	Assessment Monitoring Well
MW-9	barium	10/13/2025	399	270.6	2000	Assessment Monitoring Well
MW-9	cobalt	4/1/2025	1.8	0.7	2.1	Assessment Monitoring Well
MW-9	cobalt	10/13/2025	1.1	0.7	2.1	Assessment Monitoring Well
MW-24	arsenic	4/1/2025	4.8	4.0	10	Assessment Monitoring Well
MW-24	arsenic	10/13/2025	18.5	4.0	10	Assessment Monitoring Well
MW-24	barium	4/1/2025	522	271.1	2000	Assessment Monitoring Well
MW-24	barium	10/13/2025	614	270.6	2000	Assessment Monitoring Well
MW-24	cobalt	4/1/2025	1.7	0.7	2.1	Assessment Monitoring Well
MW-24	cobalt	10/13/2025	3.9	0.7	2.1	Assessment Monitoring Well
MW-24	nickel	4/1/2025	35.6	11.6	100	Assessment Monitoring Well
MW-24	nickel	10/13/2025	46.3	11.6	100	Assessment Monitoring Well
MW-24	benzene	4/1/2025	1.1	1.0	5	Assessment Monitoring Well
MW-24	benzene	10/13/2025	2.2	1.0	5	Assessment Monitoring Well
MW-24	1,1-dichloroethane	4/1/2025	1.5	1.0	140	Assessment Monitoring Well
MW-24	1,1-dichloroethane	10/13/2025	1.4	1.0	140	Assessment Monitoring Well
MW-24	vinyl chloride	4/1/2025	1.7	1.0	2	Assessment Monitoring Well
MW-24	vinyl chloride	10/13/2025	2.8	1.0	2	Assessment Monitoring Well
MW-26	cobalt	4/1/2025	3.4	0.7	2.1	Assessment Monitoring Well
MW-26	cobalt	10/13/2025	7.3	0.7	2.1	Assessment Monitoring Well
MW-32	barium	4/1/2025	444	271.1	2000	Assessment Monitoring Well
MW-32	barium	10/13/2025	305	270.6	2000	Assessment Monitoring Well
MW-32	cobalt	4/1/2025	0.9	0.7	2.1	Assessment Monitoring Well
MW-33	cobalt	4/1/2025	18.7	0.7	2.1	Assessment Monitoring Well
MW-33	cobalt	10/13/2025	3.5	0.7	2.1	Assessment Monitoring Well
MW-33	nickel	4/1/2025	15.0	11.6	100	Assessment Monitoring Well

Table 7 – Summary of Ongoing and Newly Identified SSI

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW5	Arsenic	10/11/2016	28.8	4.0	15.354	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	4/13/2017	22	4.0	15.807	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	10/25/2017	27	4.0	18.475	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	4/11/2018	13.2	4.0	14.532	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	10/16/2018	37.5	4.0	12.997	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	4/17/2019	27.1	4.0	14.474	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	10/15/2019	59.3	4.0	11.423	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	4/6/2020	28.5	4.0	20.614	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	10/13/2020	30	4.0	18.076	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	4/12/2021	56.2	4.0	24.074	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	10/6/2021	17.9	4.0	13.996	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	4/15/2022	5.3	4.0	1.805	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	10/25/2022	9.1	4.0	0.000	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	4/3/2023	21.4	4.0	4.613	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	10/16/2023	13.7	4.0	4.226	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	4/22/2024	15	4.0	8.829	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	10/7/2024	10.6	4.0	9.832	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	4/1/2025	11.3	4.0	10.235	10.0	4/13/2017	NA	10/16/2018
MW5	Arsenic	10/13/2025	10.3	4.0	9.243	10.0	4/13/2017	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
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Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW5	Cobalt	10/11/2016	1	0.8	0.000	2.8	4/13/2017	NA	10/16/2018
MW5	Cobalt	4/13/2017	7.3	0.8	0.000	2.8	4/13/2017	NA	10/16/2018
MW5	Cobalt	10/25/2017	0.8	0.8	0.000	2.8	4/13/2017	NA	10/16/2018
MW5	Cobalt	4/11/2018	1.3	0.8	0.000	2.8	4/13/2017	NA	10/16/2018
MW5	Cobalt	10/16/2018	<0.8	0.8	0.000	2.8	4/13/2017	NA	10/16/2018
MW5	Cobalt	4/17/2019	4.8	0.8	0.000	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	10/15/2019	<0.8	0.8	0.000	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	4/6/2020	0.6	0.8	0.000	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	10/13/2020	0.9	0.8	0.000	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	4/12/2021	2.7	0.8	0.000	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	10/6/2021	0.5	0.8	0.000	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	4/15/2022	0.6	0.8	0.000	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	10/25/2022	0.5	0.8	0.000	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	4/3/2023	0.6	0.8	0.482	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	10/16/2023	0.9	0.8	0.446	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	4/22/2024	0.6	0.8	0.446	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	10/7/2024	1.4	0.7	0.431	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	4/1/2025	0.7	0.7	0.481	2.1	4/13/2017	NA	10/16/2018
MW5	Cobalt	10/13/2025	0.7	0.7	0.415	2.1	4/13/2017	NA	10/16/2018

Table 7
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Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW5	1,1-dichloroethane	10/20/2015	1.3	1.0	0.622	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	4/11/2016	<1.0	1.0	0.622	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	10/11/2016	<1.0	1.0	0.362	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	4/13/2017	<1.0	1.0	0.229	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	10/25/2017	<1.0	1.0	0.500	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	4/11/2018	1	1.0	0.331	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	10/16/2018	<1.0	1.0	0.331	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	4/17/2019	<1.0	1.0	0.331	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	10/15/2019	<1.0	1.0	0.331	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	4/6/2020	<1.0	1.0	0.500	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	10/13/2020	<1.0	1.0	0.500	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	4/12/2021	<1.0	1.0	0.500	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	10/6/2021	<1.0	1.0	0.500	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	4/15/2022	<1.0	1.0	0.500	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	10/25/2022	<1.0	1.0	0.500	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	4/3/2023	<1.0	1.0	0.500	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	10/16/2023	<1.0	1.0	0.500	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	4/22/2024	<1.0	1.0	0.500	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	10/7/2024	2.2	1.0	0.000	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	4/1/2025	9.8	1.0	0.000	140.0	NA	NA	10/16/2018
MW5	1,1-dichloroethane	10/13/2025	4.3	1.0	0.000	140.0	NA	NA	10/16/2018

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Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW5	1,4-dichlorobenzene	10/20/2015	<1.0	1.0	0.500	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	4/11/2016	<1.0	1.0	0.500	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	10/11/2016	<1.0	1.0	0.500	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	4/13/2017	<1.0	1.0	0.500	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	10/25/2017	<1.0	1.0	0.500	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	4/11/2018	1.1	1.0	0.297	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	10/16/2018	<1.0	1.0	0.297	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	4/17/2019	<1.0	1.0	0.297	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	10/15/2019	<1.0	1.0	0.297	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	4/6/2020	<1.0	1.0	0.500	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	10/13/2020	<1.0	1.0	0.500	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	4/12/2021	<1.0	1.0	0.500	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	10/6/2021	1	1.0	0.331	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	4/15/2022	1	1.0	0.410	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	10/25/2022	<1.0	1.0	0.410	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	4/3/2023	<1.0	1.0	0.410	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	10/16/2023	<1.0	1.0	0.331	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	4/22/2024	<1.0	1.0	0.500	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	10/7/2024	<1.0	1.0	0.500	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	4/1/2025	1.2	1.0	0.263	75.0	NA	NA	10/16/2018
MW5	1,4-dichlorobenzene	10/13/2025	1.1	1.0	0.381	75.0	NA	NA	10/16/2018

Table 7

Summary of Ongoing & Newly Identified SSI

KEY:

SSI

SSL LCL>GWPS

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Annual Water Quality Report
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Permit No. 33-SDP-02-83C

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW5	2-butanone	10/20/2015	<5.0	5.0	2.500	4000.0	NA	NA	10/16/2018
MW5	2-butanone	4/11/2016	<5.0	5.0	2.500	4000.0	NA	NA	10/16/2018
MW5	2-butanone	10/11/2016	<5.0	5.0	2.500	4000.0	NA	NA	10/16/2018
MW5	2-butanone	4/13/2017	<5.0	5.0	2.500	4000.0	NA	NA	10/16/2018
MW5	2-butanone	10/25/2017	<5.0	5.0	2.500	4000.0	NA	NA	10/16/2018
MW5	2-butanone	4/11/2018	28	5.0	0.000	4000.0	NA	NA	10/16/2018
MW5	2-butanone	10/16/2018	<5.0	5.0	0.000	4000.0	NA	NA	10/16/2018
MW5	2-butanone	4/17/2019	<5.0	5.0	0.000	4000.0	NA	NA	10/16/2018
MW5	2-butanone	10/15/2019	<5.0	5.0	0.000	4000.0	NA	NA	10/16/2018
MW5	2-butanone	4/6/2020	<5.0	5.0	2.500	4000.0	NA	NA	10/16/2018
MW5	2-butanone	10/13/2020	<5.0	5.0	2.500	4000.0	NA	NA	10/16/2018
MW5	2-butanone	4/12/2021	<5.0	5.0	2.500	4000.0	NA	NA	10/16/2018
MW5	2-butanone	10/6/2021	<5.0	5.0	2.500	4000.0	NA	NA	10/16/2018
MW5	2-butanone	4/15/2022	28.4	5.0	0.000	4000.0	NA	NA	10/16/2018
MW5	2-butanone	10/25/2022	<5.0	5.0	0.000	4000.0	NA	NA	10/16/2018
MW5	2-butanone	4/3/2023	<5.0	10.0	0.000	4000.0	NA	NA	10/16/2018
MW5	2-butanone	10/16/2023	<5.0	10.0	0.000	4000.0	NA	NA	10/16/2018
MW5	2-butanone	4/22/2024	<5.0	10.0	2.500	4000.0	NA	NA	10/16/2018
MW5	2-butanone	10/7/2024	<5.0	10.0	2.500	4000.0	NA	NA	10/16/2018
MW5	2-butanone	4/1/2025	12.6	5.0	0.000	4000.0	NA	NA	10/16/2018
MW5	2-butanone	10/13/2025	<5.0	5.0	0.000	4000.0	NA	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
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Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW5	Acetone	10/20/2015	<10.0	10.0	5.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	4/11/2016	<10.0	10.0	5.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	10/11/2016	<10.0	10.0	5.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	4/13/2017	<10.0	10.0	5.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	10/25/2017	<10.0	10.0	5.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	4/11/2018	1690	10.0	0.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	10/16/2018	<10.0	10.0	0.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	4/17/2019	<10.0	10.0	0.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	10/15/2019	<10.0	10.0	0.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	4/6/2020	<10.0	10.0	5.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	10/13/2020	<10.0	10.0	5.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	4/12/2021	14.8	10.0	1.686	6300.0	NA	NA	10/16/2018
MW5	Acetone	10/6/2021	<10.0	10.0	1.686	6300.0	NA	NA	10/16/2018
MW5	Acetone	4/15/2022	751	10.0	0.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	10/25/2022	<10.0	10.0	0.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	4/3/2023	<10.0	10.0	0.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	10/16/2023	<10.0	10.0	0.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	4/22/2024	<10.0	10.0	5.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	10/7/2024	<10.0	10.0	5.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	4/1/2025	217	10.0	0.000	6300.0	NA	NA	10/16/2018
MW5	Acetone	10/13/2025	<10.0	10.0	0.000	6300.0	NA	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
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Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW5	Benzene	10/20/2015	6.7	1.0	6.316	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	4/11/2016	4.6	1.0	4.876	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	10/11/2016	5.7	1.0	4.698	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	4/13/2017	4.7	1.0	4.267	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	10/25/2017	6.2	1.0	4.384	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	4/11/2018	8.7	1.0	4.323	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	10/16/2018	5.9	1.0	4.399	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	4/17/2019	6.6	1.0	5.361	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	10/15/2019	5.6	1.0	5.056	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	4/6/2020	5.6	1.0	5.370	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	10/13/2020	6.3	1.0	5.430	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	4/12/2021	5.7	1.0	5.404	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	10/6/2021	4.5	1.0	4.634	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	4/15/2022	6	1.0	4.697	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	10/25/2022	5.4	1.0	4.638	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	4/3/2023	6.5	1.0	4.588	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	10/16/2023	4.5	1.0	4.588	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	4/22/2024	3.7	1.0	3.609	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	10/7/2024	5.2	1.0	3.579	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	4/1/2025	7.2	1.0	3.388	5.0	4/11/2016	NA	10/16/2018
MW5	Benzene	10/13/2025	7.0	1.0	3.834	5.0	4/11/2016	NA	10/16/2018

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Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW5	Bis(2-EH)phthalate	10/20/2015	8	6.0	---	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	4/11/2016	<10.0	6.0	3.986	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	10/11/2016	<10.0	6.0	3.986	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	4/13/2017	<6.0	6.0	3.986	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	10/25/2017	<6.0	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	4/11/2018	<6.0	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	10/16/2018	<6.0	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	4/17/2019	---	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	10/15/2019	---	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	4/6/2020	---	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	10/13/2020	<6.0	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	4/12/2021	---	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	10/6/2021	---	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	4/15/2022	---	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	10/25/2022	---	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	4/3/2023	---	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	10/16/2023	---	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	4/22/2024	---	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	10/7/2024	---	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	4/1/2025	---	6.0	3.000	6.0	NA	NA	10/16/2018
MW5	Bis(2-EH)phthalate	10/13/2025	<6.0	6.0	3.000	6.0	NA	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW5	Chlorobenzene	10/20/2015	<1.0	1.0	0.625	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	4/11/2016	<1.0	1.0	0.342	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	10/11/2016	<1.0	1.0	0.182	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	4/13/2017	<1.0	1.0	0.500	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	10/25/2017	1.3	1.0	0.229	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	4/11/2018	1.8	1.0	0.273	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	10/16/2018	<1.0	1.0	0.273	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	4/17/2019	<1.0	1.0	0.273	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	10/15/2019	1	1.0	0.228	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	4/6/2020	<1.0	1.0	0.331	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	10/13/2020	1	1.0	0.410	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	4/12/2021	<1.0	1.0	0.410	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	10/6/2021	1.1	1.0	0.398	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	4/15/2022	1.5	1.0	0.541	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	10/25/2022	1.1	1.0	0.565	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	4/3/2023	1.1	1.0	0.965	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	10/16/2023	1.0	1.0	0.914	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	4/22/2024	<1.0	1.0	0.587	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	10/7/2024	1.0	1.0	0.581	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	4/1/2025	2.0	1.0	0.385	100.0	4/11/2018	NA	10/16/2018
MW5	Chlorobenzene	10/13/2025	1.6	1.0	0.498	100.0	4/11/2018	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI	Resamples Due	5th Background Sample
							Initial Exceedance		
MW5	Chloroethane	10/20/2015	6.8	1.0	5.708	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	4/11/2016	7.2	1.0	5.984	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	10/11/2016	7.2	1.0	6.616	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	4/13/2017	6	1.0	6.135	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	10/25/2017	5	1.0	5.100	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	4/11/2018	6.3	1.0	5.058	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	10/16/2018	2.8	1.0	3.162	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	4/17/2019	5.5	1.0	3.137	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	10/15/2019	3.5	1.0	2.589	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	4/6/2020	4.9	1.0	2.714	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	10/13/2020	4.2	1.0	3.507	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	4/12/2021	4.2	1.0	3.528	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	10/6/2021	3.2	1.0	3.302	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	4/15/2022	3.2	1.0	3.021	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	10/25/2022	3.8	1.0	3.024	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	4/3/2023	5.6	1.0	2.614	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	10/16/2023	4	1.0	2.945	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	4/22/2024	4.1	1.0	3.403	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	10/7/2024	6.1	1.0	3.703	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	4/1/2025	8.5	1.0	3.185	2800.0	4/11/2016	NA	10/16/2018
MW5	Chloroethane	10/13/2025	7.9	1.0	4.318	2800.0	4/11/2016	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW5	Cis-1,2 dichloroethene	10/20/2015	1.9	1.0	1.908	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	4/11/2016	1.6	1.0	1.650	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	10/11/2016	1.6	1.0	1.529	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	4/13/2017	1.6	1.0	1.499	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	10/25/2017	1.5	1.0	1.516	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	4/11/2018	2.4	1.0	1.282	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	10/16/2018	<1.0	1.0	0.584	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	4/17/2019	1.3	1.0	0.507	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	10/15/2019	<1.0	1.0	0.117	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	4/6/2020	<1.0	1.0	0.229	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	10/13/2020	1.2	1.0	0.363	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	4/12/2021	<1.0	1.0	0.263	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	10/6/2021	1.6	1.0	0.309	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	4/15/2022	1.5	1.0	0.616	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	10/25/2022	1.8	1.0	0.667	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	4/3/2023	1.8	1.0	1.499	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	10/16/2023	1.6	1.0	1.499	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	4/22/2024	1.1	1.0	1.186	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	10/7/2024	1.1	1.0	0.981	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	4/1/2025	2.1	1.0	0.912	70.0	4/11/2016	NA	10/16/2018
MW5	Cis-1,2 dichloroethene	10/13/2025	2.0	1.0	0.928	70.0	4/11/2016	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
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Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI	Resamples Due	5th Background Sample
							Initial Exceedance		
MW5	Ethylbenzene	10/20/2015	<1.0	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	4/11/2016	<1.0	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	10/11/2016	<1.0	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	4/13/2017	<1.0	1.0	0.500	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	10/25/2017	1.2	1.0	0.263	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	4/11/2018	23	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	10/16/2018	<1.0	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	4/17/2019	2.9	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	10/15/2019	<1.0	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	4/6/2020	<1.0	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	10/13/2020	<1.0	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	4/12/2021	5.1	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	10/6/2021	<1.0	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	4/15/2022	11.9	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	10/25/2022	2.7	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	4/3/2023	<1.0	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	10/16/2023	<1.0	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	4/22/2024	<1.0	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	10/7/2024	<1.0	1.0	0.500	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	4/1/2025	6.7	1.0	0.000	700.0	4/11/2018	NA	10/16/2018
MW5	Ethylbenzene	10/13/2025	2.6	1.0	0.000	700.0	4/11/2018	NA	10/16/2018

Table 7
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Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW5	Vinyl Chloride	10/20/2015	<1.0	1.0	0.500	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	4/11/2016	<1.0	1.0	0.500	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	10/11/2016	<1.0	1.0	0.500	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	4/13/2017	1.1	1.0	0.297	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	10/25/2017	<1.0	1.0	0.297	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	4/11/2018	<1.0	1.0	0.297	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	10/16/2018	<1.0	1.0	0.297	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	4/17/2019	<1.0	1.0	0.500	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	10/15/2019	<1.0	1.0	0.500	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	4/6/2020	<1.0	1.0	0.500	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	10/13/2020	<1.0	1.0	0.500	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	4/12/2021	<1.0	1.0	0.500	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	10/6/2021	<1.0	1.0	0.500	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	4/15/2022	<1.0	1.0	0.500	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	10/25/2022	<1.0	1.0	0.500	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	4/3/2023	1.2	1.0	0.263	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	10/16/2023	<1.0	1.0	0.263	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	4/22/2024	<1.0	1.0	0.263	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	10/7/2024	<1.0	1.0	0.263	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	4/1/2025	1.3	1.0	0.229	2.0	NA	NA	10/16/2018
MW5	Vinyl Chloride	10/13/2025	<1.0	1.0	0.229	2.0	NA	NA	10/16/2018

Table 7
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Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW5	Xylenes	10/20/2015	<2.0	2.0	1.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	4/11/2016	<2.0	2.0	1.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	10/11/2016	<2.0	2.0	1.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	4/13/2017	<2.0	2.0	1.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	10/25/2017	<2.0	2.0	1.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	4/11/2018	23.5	2.0	0.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	10/16/2018	<2.0	2.0	0.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	4/17/2019	<2.0	2.0	0.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	10/15/2019	<2.0	2.0	0.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	4/6/2020	<2.0	2.0	1.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	10/13/2020	<2.0	2.0	1.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	4/12/2021	2.8	2.0	0.391	10000.0	NA	NA	10/16/2018
MW5	Xylenes	10/6/2021	<2.0	2.0	0.391	10000.0	NA	NA	10/16/2018
MW5	Xylenes	4/15/2022	6.7	2.0	0.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	10/25/2022	<2.0	2.0	0.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	4/3/2023	<2.0	2.0	0.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	10/16/2023	<2.0	2.0	0.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	4/22/2024	<2.0	2.0	1.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	10/7/2024	<2.0	2.0	1.000	10000.0	NA	NA	10/16/2018
MW5	Xylenes	4/1/2025	2.2	2.0	0.594	10000.0	NA	NA	10/16/2018
MW5	Xylenes	10/13/2025	<2.0	2.0	0.594	10000.0	NA	NA	10/16/2018

Bold GWPS = A Site Specific GWPS that is equal to the Prediction Limit. All other GWPS are IAC 567-137
 Statewide Standards for Protected Groundwater.

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW7	Zinc	10/11/2016	33.2	20.8	17.992	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	4/13/2017	65.5	20.8	20.691	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	10/25/2017	17.5	20.8	12.414	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	4/11/2018	64.8	20.8	17.187	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	10/16/2018	14.5	20.8	0	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	4/17/2019	60.4	20.8	0	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	10/15/2019	60.8	20.8	9.896	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	4/6/2020	45.9	20.8	1.144	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	10/13/2020	34.2	20.8	35.279	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	4/12/2021	<20.0	20.8	12.493	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	10/13/2020	22.3	20.8	9.937	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	4/15/2022	23.4	20.8	10.831	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	10/25/2022	23.7	20.8	12.093	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	4/3/2023	27.5	20.8	21.561	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	10/16/2023	<20.0	20.8	12.135	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	4/22/2024	<20.0	20.8	7.05	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	10/7/2024	39.5	20.8	4.782	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	4/1/2025	11.3	20.8	0.589	2000	4/13/2017	NA	10/16/2018
MW7	Zinc	10/13/2025	23.2	20.8	4.898	2000	4/13/2017	NA	10/16/2018

Bold GWPS = A Site Specific GWPS that is equal to the Prediction Limit. All other GWPS are IAC 567-137 Statewide Standards for Protected Groundwater.

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Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW9	Arsenic	10/11/2016	<4.0	4.0	0.000	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	4/13/2017	<4.0	4.0	0.000	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	10/25/2017	<4.0	4.0	0.000	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	4/11/2018	4.1	4.0	1.290	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	10/16/2018	<4.0	4.0	1.290	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	4/17/2019	14.1	4.0	0.000	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	10/15/2019	<4.0	4.0	0.000	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	4/6/2020	16.8	4.0	0.000	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	10/13/2020	<4.0	4.0	0.000	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	4/12/2021	11.8	4.0	0.000	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	10/6/2021	<4.0	4.0	0.000	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	4/15/2022	10.7	4.0	0.321	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	10/25/2022	5.1	4.0	1.937	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	4/3/2023	4.5	4.0	1.257	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	10/16/2023	6.1	4.0	3.292	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	4/22/2024	<4.0	4.0	2.371	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	10/7/2024	5.1	4.0	2.371	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	4/1/2025	5.9	4.0	2.540	10.0	10/25/2022	NA	10/16/2018
MW9	Arsenic	10/13/2025	7.0	4.0	2.475	10.0	10/25/2022	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring							SSI		
Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	Initial Exceedance	Resamples Due	5th Background Sample
MW9	Barium	10/11/2016	296	225.0937	278.135	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	4/13/2017	346	225.0937	247.985	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	10/25/2017	304	225.0937	214.448	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	4/11/2018	303	225.0937	285.454	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	10/16/2018	252	225.0937	218.871	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	4/17/2019	432	229.828	243.006	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	10/15/2019	270	226.3767	223.677	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	4/6/2020	474	221.6195	282.776	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	10/13/2020	281	216.3691	241.915	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	4/12/2021	369	213.1538	237.137	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	10/6/2021	285	208.9567	245.510	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	4/15/2022	379	205.9534	266.483	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	10/25/2022	353	204.5711	296.654	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	4/3/2023	334	202.4269	291.039	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	10/16/2023	435	201.4397	323.615	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	4/22/2024	394	199.5406	326.124	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	10/7/2024	519	272.4527	329.140	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	4/1/2025	559	271.0573	387.836	2000.0	10/11/2016	NA	10/16/2018
MW9	Barium	10/13/2025	399	270.5859	369.057	2000.0	10/11/2016	NA	10/16/2018

Table 7
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Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW9	Cobalt	10/11/2016	<0.8	0.8	0.000	2.8	10/16/2023	NA	10/16/2018
MW9	Cobalt	4/13/2017	1.1	0.8	0.000	2.8	10/16/2023	NA	10/16/2018
MW9	Cobalt	10/25/2017	<0.8	0.8	0.000	2.8	10/16/2023	NA	10/16/2018
MW9	Cobalt	4/11/2018	1	0.8	0.000	2.8	10/16/2023	NA	10/16/2018
MW9	Cobalt	10/16/2018	<0.8	0.8	0.000	2.8	10/16/2023	NA	10/16/2018
MW9	Cobalt	4/17/2019	0.9	0.8	0.000	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	10/15/2019	<0.8	0.8	0.000	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	4/6/2020	0.9	0.8	0.000	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	10/13/2020	0.5	0.8	0.000	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	4/12/2021	1	0.8	0.000	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	10/6/2021	0.6	0.8	0.470	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	4/15/2022	1.5	0.8	0.365	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	10/25/2022	0.7	0.8	0.475	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	4/3/2023	1.1	0.8	0.491	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	10/16/2023	1.7	0.8	0.728	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	4/22/2024	1.6	0.8	0.729	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	10/7/2024	1.7	0.7	1.187	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	4/1/2025	1.8	0.7	1.604	2.1	10/16/2023	NA	10/16/2018
MW9	Cobalt	10/13/2025	1.1	0.7	1.184	2.1	10/16/2023	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW9	Nickel	10/11/2016	<4.0	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	4/13/2017	4.1	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	10/25/2017	<4.0	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	4/11/2018	<4.0	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	10/16/2018	5.7	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	4/17/2019	<4.0	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	10/15/2019	<4.0	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	4/6/2020	<4.0	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	10/13/2020	<4.0	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	4/12/2021	<4.0	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	10/6/2021	<4.0	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	4/15/2022	<4.0	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	10/25/2022	<4.0	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	4/3/2023	<4.0	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	10/16/2023	8.4	4.3	---	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	4/22/2024	5.1	4.3	0.781	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	10/7/2024	9.7	11.6	0.752	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	4/1/2025	<5.0	11.6	2.231	100.0	4/22/2024	NA	10/16/2018
MW9	Nickel	10/13/2025	<5.0	11.6	0.956	100.0	4/22/2024	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW9	Bis(2-EH)phthalate	10/11/2016	---	6.0	---	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	4/13/2017	<6.0	6.0	---	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	10/25/2017	---	6.0	---	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	4/11/2018	6.0	6.0	---	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	7/2/2018	<6.0	6.0	---	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	10/16/2018	<6.0	6.0	1.986	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	4/17/2019	<6.0	6.0	1.986	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	10/15/2019	12.0	6.0	0.000	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	4/6/2020	<6.0	6.0	0.000	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	10/13/2020	<6.0	6.0	0.000	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	4/12/2021	6.0	6.0	1.009	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	10/6/2021	<6.0	6.0	1.986	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	4/15/2022	<6.0	6.0	1.986	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	10/25/2022	6.0	6.0	2.463	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	4/3/2023	<6.0	6.0	1.986	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	10/16/2023	---	6.0	1.986	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	4/22/2024	---	6.0	1.986	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	10/7/2024	---	6.0	1.986	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	4/1/2025	---	6.0	1.986	6.0	NA	NA	10/16/2018
MW9	Bis(2-EH)phthalate	10/13/2025	---	6.0	1.986	6.0	NA	NA	10/16/2018

Bold GWPS = A Site Specific GWPS that is equal to the Prediction Limit. All other GWPS are IAC 567-137 Statewide Standards for Protected Groundwater.

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

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Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW24	Arsenic	10/11/2016	4.5	4.0	1.579	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	4/13/2017	<4.0	4.0	0.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	10/25/2017	18.6	4.0	0.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	4/11/2018	6.2	4.0	0.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	10/16/2018	<4.0	4.0	0.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	4/17/2019	<4.0	4.0	0.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	10/15/2019	<4.0	4.0	0.580	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	4/6/2020	<4.0	4.0	2.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	10/13/2020	13.4	4.0	0.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	4/12/2021	<4.0	4.0	0.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	10/6/2021	12.1	4.0	0.048	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	4/15/2022	<4.0	4.0	0.048	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	10/25/2022	16	4.0	0.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	4/3/2023	<4.0	4.0	0.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	10/16/2023	Dry	4.0	0.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	4/22/2024	10.8	4.0	0.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	10/7/2024	Dry	4.0	0.000	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	4/1/2025	4.8	4.0	1.040	10	4/11/2018	NA	10/16/2018
MW24	Arsenic	10/13/2025	18.5	4.0	0.431	10	4/11/2018	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
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Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW24	Barium	10/11/2016	490	225.0937	482.890	2000	4/13/2017	NA	10/16/2018
MW24	Barium	4/13/2017	434	225.0937	443.328	2000	4/13/2017	NA	10/16/2018
MW24	Barium	10/25/2017	519	225.0937	443.166	2000	4/13/2017	NA	10/16/2018
MW24	Barium	4/11/2018	398	225.0937	396.178	2000	4/13/2017	NA	10/16/2018
MW24	Barium	10/16/2018	371	225.0937	354.750	2000	4/13/2017	NA	10/16/2018
MW24	Barium	4/17/2019	371	229.828	331.638	2000	4/13/2017	NA	10/16/2018
MW24	Barium	10/15/2019	446	226.3767	354.895	2000	4/13/2017	NA	10/16/2018
MW24	Barium	4/6/2020	531	221.6195	340.118	2000	4/13/2017	NA	10/16/2018
MW24	Barium	10/13/2020	491	216.3691	379.054	2000	4/13/2017	NA	10/16/2018
MW24	Barium	4/12/2021	337	213.1538	352.786	2000	4/13/2017	NA	10/16/2018
MW24	Barium	10/6/2021	466	208.9567	357.575	2000	4/13/2017	NA	10/16/2018
MW24	Barium	4/15/2022	350	205.9534	318.324	2000	4/13/2017	NA	10/16/2018
MW24	Barium	10/25/2022	529	204.5711	311.447	2000	4/13/2017	NA	10/16/2018
MW24	Barium	4/3/2023	389	202.4269	339.571	2000	4/13/2017	NA	10/16/2018
MW24	Barium	10/16/2023	Dry	201.4397	339.571	2000	4/13/2017	NA	10/16/2018
MW24	Barium	4/22/2024	490	199.5406	340.802	2000	4/13/2017	NA	10/16/2018
MW24	Barium	10/7/2024	Dry	272.4527	340.802	2000	4/13/2017	NA	10/16/2018
MW24	Barium	4/1/2025	522	271.0573	406.507	2000	4/13/2017	NA	10/16/2018
MW24	Barium	10/13/2025	614	270.5859	394.571	2000	4/13/2017	NA	10/16/2018

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Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW24	Cobalt	10/11/2016	2.8	0.8	2.876*	2.8	4/13/2017	NA	10/16/2018
MW24	Cobalt	4/13/2017	3.1	0.8	2.714	2.8	4/13/2017	NA	10/16/2018
MW24	Cobalt	10/25/2017	2.4	0.8	2.217	2.8	4/13/2017	NA	10/16/2018
MW24	Cobalt	4/11/2018	1.8	0.8	1.864	2.8	4/13/2017	NA	10/16/2018
MW24	Cobalt	10/16/2018	1	0.8	1.026	2.8	4/13/2017	NA	10/16/2018
MW24	Cobalt	4/17/2019	2.2	0.8	1.122	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	10/15/2019	1.2	0.8	0.902	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	4/6/2020	2.5	0.8	0.859	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	10/13/2020	1.4	0.8	1.091	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	4/12/2021	1.8	0.8	1.050	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	10/6/2021	1.5	0.8	1.216	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	4/15/2022	1.5	0.8	1.346	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	10/25/2022	0.8	0.8	0.901	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	4/3/2023	0.8	0.8	0.675	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	10/16/2023	Dry	0.8	0.675	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	4/22/2024	2.1	0.8	0.562	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	10/7/2024	Dry	0.7	0.562	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	4/1/2025	1.7	0.7	0.579	2.1	4/13/2017	NA	10/16/2018
MW24	Cobalt	10/13/2025	3.9	0.7	0.593	2.1	4/13/2017	NA	10/16/2018

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KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW24	Nickel	10/11/2016	27.9	4.3	25.795	100	4/13/2017	NA	10/16/2018
MW24	Nickel	4/13/2017	23.1	4.3	22.899	100	4/13/2017	NA	10/16/2018
MW24	Nickel	10/25/2017	31.6	4.3	22.996	100	4/13/2017	NA	10/16/2018
MW24	Nickel	4/11/2018	25.9	4.3	22.921	100	4/13/2017	NA	10/16/2018
MW24	Nickel	10/16/2018	18.3	4.3	18.191	100	4/13/2017	NA	10/16/2018
MW24	Nickel	4/17/2019	18.8	4.3	16.198	100	4/13/2017	NA	10/16/2018
MW24	Nickel	10/15/2019	29	4.3	16.770	100	4/13/2017	NA	10/16/2018
MW24	Nickel	4/6/2020	32.5	4.3	16.192	100	4/13/2017	NA	10/16/2018
MW24	Nickel	10/13/2020	35	4.3	20.448	100	4/13/2017	NA	10/16/2018
MW24	Nickel	4/12/2021	21.1	4.3	22.277	100	4/13/2017	NA	10/16/2018
MW24	Nickel	10/6/2021	35.5	4.3	23.090	100	4/13/2017	NA	10/16/2018
MW24	Nickel	4/15/2022	24.5	4.3	20.410	100	4/13/2017	NA	10/16/2018
MW24	Nickel	10/25/2022	40	4.3	19.767	100	4/13/2017	NA	10/16/2018
MW24	Nickel	4/3/2023	27.6	4.3	23.532	100	4/13/2017	NA	10/16/2018
MW24	Nickel	10/16/2023	Dry	4.3	23.532	100	4/13/2017	NA	10/16/2018
MW24	Nickel	4/22/2024	38	4.3	23.554	100	4/13/2017	NA	10/16/2018
MW24	Nickel	10/7/2024	Dry	11.6	23.554	100	4/13/2017	NA	10/16/2018
MW24	Nickel	4/1/2025	35.6	11.6	28.902	100	4/13/2017	NA	10/16/2018
MW24	Nickel	10/13/2025	46.3	11.6	27.821	100	4/13/2017	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
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Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW24	Benzene	10/20/2015	1.6	1.0	0.241	5	NA	NA	10/16/2018
MW24	Benzene	4/11/2016	<1.0	1.0	0.241	5	NA	NA	10/16/2018
MW24	Benzene	10/11/2016	1.4	1.0	0.383	5	NA	NA	10/16/2018
MW24	Benzene	4/13/2017	<1.0	1.0	0.021	5	NA	NA	10/16/2018
MW24	Benzene	10/25/2017	<1.0	1.0	0.000	5	NA	NA	10/16/2018
MW24	Benzene	4/11/2018	1.2	1.0	0.055	5	NA	NA	10/16/2018
MW24	Benzene	10/16/2018	<1.0	1.0	0.000	5	NA	NA	10/16/2018
MW24	Benzene	4/17/2019	<1.0	1.0	0.000	5	NA	NA	10/16/2018
MW24	Benzene	10/15/2019	<1.0	1.0	0.263	5	NA	NA	10/16/2018
MW24	Benzene	4/6/2020	<1.0	1.0	0.500	5	NA	NA	10/16/2018
MW24	Benzene	10/13/2020	1.6	1.0	0.128	5	NA	NA	10/16/2018
MW24	Benzene	4/12/2021	<1.0	1.0	0.128	5	NA	NA	10/16/2018
MW24	Benzene	10/6/2021	1.4	1.0	0.314	5	NA	NA	10/16/2018
MW24	Benzene	4/15/2022	<1.0	1.0	0.314	5	NA	NA	10/16/2018
MW24	Benzene	10/25/2022	2	1.0	0.236	5	NA	NA	10/16/2018
MW24	Benzene	4/3/2023	<1.0	1.0	0.236	5	NA	NA	10/16/2018
MW24	Benzene	10/16/2023	Dry	1.0	0.236	5	NA	NA	10/16/2018
MW24	Benzene	4/22/2024	<1.0	1.0	0.236	5	NA	NA	10/16/2018
MW24	Benzene	10/7/2024	Dry	1.0	0.236	5	NA	NA	10/16/2018
MW24	Benzene	4/1/2025	1.1	1.0	0.191	5	NA	NA	10/16/2018
MW24	Benzene	10/13/2025	2.2	1.0	0.132	5	NA	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW24	Bis(2-EH)phthalate	10/20/2015	<8.0	6.0	---	6	NA	NA	10/16/2018
MW24	Bis(2-EH)phthalate	4/11/2016	<8.0	6.0	---	6	NA	NA	10/16/2018
MW24	Bis(2-EH)phthalate	4/12/2021	12	6.0	---	6	NA	NA	10/16/2018
MW24	Bis(2-EH)phthalate	10/6/2021	<6.0	6.0	1.295	6	NA	NA	10/16/2018
MW24	Bis(2-EH)phthalate	4/15/2022	<6.0	6.0	0.000	6	NA	NA	10/16/2018
MW24	Bis(2-EH)phthalate	10/25/2022	<6.0	6.0	0.000	6	NA	NA	10/16/2018
MW24	Bis(2-EH)phthalate	4/3/2023	NT	6.0	0.000	6	NA	NA	10/16/2018
MW24	Bis(2-EH)phthalate	10/16/2023	Dry	6.0	0.000	6	NA	NA	10/16/2018
MW24	Bis(2-EH)phthalate	4/22/2024	NT	6.0	0.000	6	NA	NA	10/16/2018
MW24	Bis(2-EH)phthalate	10/7/2024	Dry	6.0	0.000	6	NA	NA	10/16/2018
MW24	Bis(2-EH)phthalate	4/1/2025	NT	6.0	0.000	6	NA	NA	10/16/2018
MW24	Bis(2-EH)phthalate	10/13/2025	NT	6.0	0.000	6	NA	NA	10/16/2018

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Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW24	1,1-dichloroethane	10/20/2015	1	1.0	0.331	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	4/11/2016	<1.0	1.0	0.331	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	10/11/2016	<1.0	1.0	0.331	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	4/13/2017	<1.0	1.0	0.331	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	10/25/2017	<1.0	1.0	0.500	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	4/11/2018	<1.0	1.0	0.500	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	10/16/2018	<1.0	1.0	0.500	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	4/17/2019	<1.0	1.0	0.500	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	10/15/2019	<1.0	1.0	0.500	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	4/6/2020	<1.0	1.0	0.500	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	10/13/2020	1.1	1.0	0.297	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	4/12/2021	<1.0	1.0	0.297	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	10/6/2021	1.2	1.0	0.381	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	4/15/2022	<1.0	1.0	0.381	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	10/25/2022	1.7	1.0	0.287	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	4/3/2023	<1.0	1.0	0.287	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	10/16/2023	Dry	1.0	0.287	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	4/22/2024	<1.0	1.0	0.287	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	10/7/2024	Dry	1.0	0.287	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	4/1/2025	1.5	1.0	0.297	140	NA	NA	10/16/2018
MW24	1,1-dichloroethane	10/13/2025	1.4	1.0	0.328	140	NA	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
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Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW24	Vinyl Chloride	10/20/2015	<1.0	1.0	0.500	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	4/11/2016	<1.0	1.0	0.500	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	10/11/2016	<1.0	1.0	0.500	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	4/13/2017	<1.0	1.0	0.500	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	10/25/2017	<1.0	1.0	0.500	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	4/11/2018	<1.0	1.0	0.500	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	10/16/2018	<1.0	1.0	0.500	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	4/17/2019	<1.0	1.0	0.500	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	10/15/2019	<1.0	1.0	0.500	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	4/6/2020	<1.0	1.0	0.500	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	10/13/2020	1.4	1.0	0.196	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	4/12/2021	<1.0	1.0	0.196	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	10/6/2021	1.4	1.0	0.339	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	4/15/2022	<1.0	1.0	0.339	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	10/25/2022	2.2	1.0	0.187	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	4/3/2023	<1.0	1.0	0.187	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	10/16/2023	Dry	1.0	0.187	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	4/22/2024	<1.0	1.0	0.187	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	10/7/2024	Dry	1.0	0.187	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	4/1/2025	1.7	1.0	0.211	2	NA	NA	10/16/2018
MW24	Vinyl Chloride	10/13/2025	2.8	1.0	0.074	2	NA	NA	10/16/2018

* - well head of MW-24 was repaired to correct surface infiltration

Bold GWPS = A Site Specific GWPS that is equal to the Prediction Limit. All other GWPS are IAC 567-137 Statewide Standards for Protected Groundwater.

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW25	Cobalt	10/11/2016	4.3	0.8	0.773	2.8	4/13/2017	NA	10/16/2018
MW25	Cobalt	4/13/2017	0.9	0.8	0.652	2.8	4/13/2017	NA	10/16/2018
MW25	Cobalt	10/25/2017	2.6	0.8	1.101	2.8	4/13/2017	NA	10/16/2018
MW25	Cobalt	4/11/2018	0.8	0.8	0.204	2.8	4/13/2017	NA	10/16/2018
MW25	Cobalt	10/16/2018	1.9	0.8	0.540	2.8	4/13/2017	NA	10/16/2018
MW25	Cobalt	4/17/2019	1.5	0.8	0.815	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	10/15/2019	2	0.8	0.909	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	4/6/2020	0.8	0.8	0.909	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	10/13/2020	1.8	0.8	0.907	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	4/12/2021	2.1	0.8	0.973	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	10/6/2021	1.3	0.8	0.828	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	4/15/2022	0.7	0.8	0.754	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	10/25/2022	4.7	0.8	0.127	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	4/3/2023	0.6	0.8	0.000	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	10/16/2023	<0.4	0.8	0.000	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	4/22/2024	4.7	0.8	0.000	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	10/7/2024	<0.4	0.7	0.000	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	4/1/2025	<0.5	0.7	0.000	2.1	4/13/2017	NA	10/16/2018
MW25	Cobalt	10/13/2025	0.6	0.7	0.000	2.1	4/13/2017	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW25	Nickel	10/11/2016	<4.0	4.3	5.000	100	NA	NA	10/16/2018
MW25	Nickel	4/13/2017	<4.0	4.3	5.000	100	NA	NA	10/16/2018
MW25	Nickel	10/25/2017	117	4.3	0.000	100	NA	NA	10/16/2018
MW25	Nickel	4/11/2018	<4.0	4.3	0.000	100	NA	NA	10/16/2018
MW25	Nickel	10/16/2018	4.2	4.3	0.000	100	NA	NA	10/16/2018
MW25	Nickel	4/17/2019	<4.0	4.3	0.000	100	NA	NA	10/16/2018
MW25	Nickel	10/15/2019	<4.0	4.3	1.256	100	NA	NA	10/16/2018
MW25	Nickel	4/6/2020	<4.0	4.3	1.256	100	NA	NA	10/16/2018
MW25	Nickel	10/13/2020	<4.0	4.3	2.000	100	NA	NA	10/16/2018
MW25	Nickel	4/12/2021	<4.0	4.3	2.000	100	NA	NA	10/16/2018
MW25	Nickel	10/6/2021	<4.0	4.3	2.000	100	NA	NA	10/16/2018
MW25	Nickel	4/15/2022	<4.0	4.3	2.000	100	NA	NA	10/16/2018
MW25	Nickel	10/25/2022	<4.0	4.3	2.000	100	NA	NA	10/16/2018
MW25	Nickel	4/3/2023	<4.0	4.3	2.000	100	NA	NA	10/16/2018
MW25	Nickel	10/16/2023	<4.0	4.3	2.000	100	NA	NA	10/16/2018
MW25	Nickel	4/22/2024	7.9	4.3	0.005	100	NA	NA	10/16/2018
MW25	Nickel	10/7/2024	8.1	11.6	1.999	100	NA	NA	10/16/2018
MW25	Nickel	4/1/2025	<5.0	11.6	0.924	100	NA	NA	10/16/2018
MW25	Nickel	10/13/2025	6.0	11.6	2.672	100	NA	NA	10/16/2018

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Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW25	Zinc	10/11/2016	<20.0	20.8	---	2000	NA	NA	10/16/2018
MW25	Zinc	4/13/2017	<8.0	20.8	4.555	2000	NA	NA	10/16/2018
MW25	Zinc	10/25/2017	13.5	20.8	1.530	2000	NA	NA	10/16/2018
MW25	Zinc	4/11/2018	53.9	20.8	0.000	2000	NA	NA	10/16/2018
MW25	Zinc	10/16/2018	<8.0	20.8	0.000	2000	NA	NA	10/16/2018
MW25	Zinc	4/17/2019	<20	20.8	0.000	2000	NA	NA	10/16/2018
MW25	Zinc	10/15/2019	8.6	20.8	0.000	2000	NA	NA	10/16/2018
MW25	Zinc	4/6/2020	<20	20.8	10.000	2000	NA	NA	10/16/2018
MW25	Zinc	10/13/2020	<20	20.8	10.000	2000	NA	NA	10/16/2018
MW25	Zinc	4/12/2021	<20	20.8	10.000	2000	NA	NA	10/16/2018
MW25	Zinc	10/6/2021	<20	20.8	10.000	2000	NA	NA	10/16/2018
MW25	Zinc	4/15/2022	<20	20.8	10.000	2000	NA	NA	10/16/2018
MW25	Zinc	10/25/2022	<20	20.8	10.000	2000	NA	NA	10/16/2018
MW25	Zinc	4/3/2023	<20	20.8	10.000	2000	NA	NA	10/16/2018
MW25	Zinc	10/16/2023	<20	20.8	10.000	2000	NA	NA	10/16/2018
MW25	Zinc	4/22/2024	<20	20.8	10.000	2000	NA	NA	10/16/2018
MW25	Zinc	10/7/2024	<20	20.8	10.000	2000	NA	NA	10/16/2018
MW25	Zinc	4/1/2025	9.2	20.8	9.274	2000	NA	NA	10/16/2018
MW25	Zinc	10/13/2025	10.6	20.8	9.274	2000	NA	NA	10/16/2018

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Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW25	Bis(2-EH)phthalate	4/13/2017	18.0	6.0	---	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	10/25/2017	<6.0	6.0	---	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	4/11/2018	<6.0	6.0	---	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	10/16/2018	<6.0	6.0	0.255	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	4/17/2019	<6.0	6.0	3.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	10/15/2019	<6.0	6.0	3.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	4/6/2020	<6.0	6.0	3.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	10/13/2020	<6.0	6.0	3.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	4/12/2021	---	6.0	3.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	10/6/2021	---	6.0	3.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	4/15/2022	---	6.0	3.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	10/25/2022	---	6.0	3.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	4/3/2023	15.0	6.0	0.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	10/16/2023	<6.0	6.0	0.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	4/22/2024	---	6.0	0.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	10/7/2024	---	6.0	0.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	4/1/2025	---	6.0	0.000	6	NA	NA	10/16/2018
MW25	Bis(2-EH)phthalate	10/13/2025	---	6.0	0.000	6	NA	NA	10/16/2018

Bold GWPS = A Site Specific GWPS that is equal to the Prediction Limit. All other GWPS are IAC 567-137
Statewide Standards for Protected Groundwater.

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW26	Cobalt	10/11/2016	2.9	0.8	0.292	2.8	4/11/2018	NA	10/16/2018
MW26	Cobalt	4/13/2017	<0.8	0.8	0.351	2.8	4/11/2018	NA	10/16/2018
MW26	Cobalt	10/25/2017	4	0.8	1.305	2.8	4/11/2018	NA	10/16/2018
MW26	Cobalt	4/11/2018	3.2	0.8	1.194	2.8	4/11/2018	NA	10/16/2018
MW26	Cobalt	10/16/2018	2.1	0.8	2.242	2.8	4/11/2018	NA	10/16/2018
MW26	Cobalt	4/17/2019	<0.8	0.8	0.950	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	10/15/2019	1.2	0.8	0.556	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	4/6/2020	1	0.8	0.586	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	10/13/2020	3.6	0.8	0.096	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	4/12/2021	<0.4	0.8	0.096	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	10/6/2021	3.6	0.8	0.398	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	4/15/2022	0.6	0.8	0.164	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	10/25/2022	0.9	0.8	0.000	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	4/3/2023	<0.4	0.8	0.000	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	10/16/2023	13.6	0.8	0.000	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	4/22/2024	1.1	0.8	0.000	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	10/7/2024	11.8	0.7	0.000	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	4/1/2025	3.4	0.7	0.241	2.1	4/11/2018	NA	10/16/2018
MW26	Cobalt	10/13/2025	7.3	0.7	0.380	2.1	4/11/2018	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW26	Nickel	10/11/2016	8.2	4.3	3.728	100	4/13/2017	NA	10/16/2018
MW26	Nickel	4/13/2017	4.7	4.3	3.564	100	4/13/2017	NA	10/16/2018
MW26	Nickel	10/25/2017	11.2	4.3	3.398	100	4/13/2017	NA	10/16/2018
MW26	Nickel	4/11/2018	11.1	4.3	5.192	100	4/13/2017	NA	10/16/2018
MW26	Nickel	10/16/2018	4.1	4.3	3.182	100	4/13/2017	NA	10/16/2018
MW26	Nickel	4/17/2019	<4.0	4.3	3.347	100	4/13/2017	NA	10/16/2018
MW26	Nickel	10/15/2019	5	4.3	2.503	100	4/13/2017	NA	10/16/2018
MW26	Nickel	4/6/2020	<4.0	4.3	4.246	100	4/13/2017	NA	10/16/2018
MW26	Nickel	10/13/2020	10.1	4.3	3.275	100	4/13/2017	NA	10/16/2018
MW26	Nickel	4/12/2021	<4.0	4.3	3.275	100	4/13/2017	NA	10/16/2018
MW26	Nickel	10/6/2021	7.5	4.3	4.033	100	4/13/2017	NA	10/16/2018
MW26	Nickel	4/15/2022	<4.0	4.3	4.033	100	4/13/2017	NA	10/16/2018
MW26	Nickel	10/25/2022	7.3	4.3	4.567	100	4/13/2017	NA	10/16/2018
MW26	Nickel	4/3/2023	<4.0	4.3	4.567	100	4/13/2017	NA	10/16/2018
MW26	Nickel	10/16/2023	9.3	4.3	4.212	100	4/13/2017	NA	10/16/2018
MW26	Nickel	4/22/2024	<4.0	4.3	4.212	100	4/13/2017	NA	10/16/2018
MW26	Nickel	10/7/2024	8.7	11.6	1.994	100	4/13/2017	NA	10/16/2018
MW26	Nickel	4/1/2025	5.3	11.6	4.441	100	4/13/2017	NA	10/16/2018
MW26	Nickel	10/13/2025	7.9	11.6	4.547	100	4/13/2017	NA	10/16/2018

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW26	Bis(2-EH)phthalate	10/11/2016	---	6.0	---	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	4/13/2017	---	6.0	---	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	10/25/2017	12.0	6.0	---	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	4/11/2018	<6	6.0	---	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	10/16/2018	<6	6.0	---	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	4/17/2019	7.0	6.0	1.647	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	10/15/2019	<6	6.0	1.647	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	4/6/2020	<6	6.0	1.647	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	10/13/2020	<6	6.0	1.647	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	4/12/2021	<6	6.0	3.000	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	10/6/2021	<6	6.0	3.000	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	4/15/2022	---	6.0	3.000	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	10/25/2022	---	6.0	3.000	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	4/3/2023	18.0	6.0	0.000	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	10/16/2023	<6	6.0	0.000	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	4/22/2024	---	6.0	0.000	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	10/7/2024	---	6.0	0.000	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	4/1/2025	---	6.0	0.000	6	NA	NA	10/16/2018
MW26	Bis(2-EH)phthalate	10/13/2025	---	6.0	0.000	6	NA	NA	10/16/2018

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Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW32	Arsenic	4/11/2018	<4.0	4.0	---	10	NA	NA	10/16/2018
MW32	Arsenic	10/16/2018	<4.0	4.0	---	10	NA	NA	10/16/2018
MW32	Arsenic	4/17/2019	<4.0	4.0	---	10	NA	NA	10/16/2018
MW32	Arsenic	10/15/2019	<4.0	4.0	2.000	10	NA	NA	10/16/2018
MW32	Arsenic	4/6/2020	<4.0	4.0	2.000	10	NA	NA	10/16/2018
MW32	Arsenic	10/13/2020	<4.0	4.0	2.000	10	NA	NA	10/16/2018
MW32	Arsenic	4/12/2021	5.5	4.0	0.816	10	NA	NA	10/16/2018
MW32	Arsenic	10/6/2021	<4.0	4.0	0.816	10	NA	NA	10/16/2018
MW32	Arsenic	4/15/2022	<4.0	4.0	0.816	10	NA	NA	10/16/2018
MW32	Arsenic	10/25/2022	<4.0	4.0	0.816	10	NA	NA	10/16/2018
MW32	Arsenic	4/3/2023	<4.0	4.0	2.000	10	NA	NA	10/16/2018
MW32	Arsenic	10/16/2023	8.9	4.0	0.000	10	NA	NA	10/16/2018
MW32	Arsenic	4/22/2024	<4.0	4.0	0.000	10	NA	NA	10/16/2018
MW32	Arsenic	10/7/2024	4.2	4.0	0.448	10	NA	NA	10/16/2018
MW32	Arsenic	4/1/2025	<2.0	4.0	0.448	10	NA	NA	10/16/2018
MW32	Arsenic	10/13/2025	3.8	4.0	1.628	10	NA	NA	10/16/2018

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Permit No. 33-SDP-02-83C

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Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW32	Barium	4/11/2018	247	225.0937	---	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	10/16/2018	199	225.0937	---	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	4/17/2019	238	229.828	---	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	10/15/2019	199	226.3767	---	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	4/6/2020	205	221.6195	---	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	10/13/2020	188	216.3691	---	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	4/12/2021	254	213.1538	177.159	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	7/1/2021	219	213.1538	177.159	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	10/6/2021	197	208.9567	179.944	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	4/15/2022	206	205.9534	189.569	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	10/25/2022	281	204.5711	181.140	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	4/3/2023	344	202.4269	175.657	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	10/16/2023	460	201.4397	196.310	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	4/22/2024	421	199.5406	282.571	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	10/7/2024	326	272.4527	313.192	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	4/1/2025	444	271.0573	342.164	2,000	7/1/2021	NA	10/16/2018
MW32	Barium	10/13/2025	305	270.5859	293.146	2,000	7/1/2021	NA	10/16/2018

Table 7
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Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW32	Cobalt	1/17/2018	1.7	0.8	---	2.8	4/11/2018	NA	10/16/2018
MW32	Cobalt	4/11/2018	1.0	0.8	---	2.8	4/11/2018	NA	10/16/2018
MW32	Cobalt	10/16/2018	<0.8	0.8	---	2.8	4/11/2018	NA	10/16/2018
MW32	Cobalt	4/17/2019	0.8	0.8	---	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	10/15/2019	<0.8	0.8	---	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	4/6/2020	0.7	0.8	---	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	10/13/2020	<0.4	0.8	---	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	4/12/2021	0.4	0.8	---	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	10/6/2021	<0.4	0.8	---	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	4/15/2022	0.4	0.8	0.164	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	10/25/2022	2.3	0.8	0.000	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	4/3/2023	0.6	0.8	0.000	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	10/16/2023	<0.4	0.8	0.000	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	4/22/2024	1.4	0.8	0.033	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	10/7/2024	0.4	0.7	0.031	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	4/1/2025	0.9	0.7	0.092	2.1	4/11/2018	NA	10/16/2018
MW32	Cobalt	10/13/2025	<0.5	0.7	0.092	2.1	4/11/2018	NA	10/16/2018

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Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	Prediction	95% LCL	GWPS	SSI	Resamples	5th Background
Well	Compound	Date	Result (ug/L)	Limit (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	Due	Sample
MW33	Arsenic	7/2/2018	<4.0	4.0	---	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	10/16/2018	<4.0	4.0	---	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	4/17/2019	<4.0	4.0	---	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	10/15/2019	<4.0	4.0	---	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	4/6/2020	<4.0	4.0	---	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	10/13/2020	<4.0	4.0	---	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	4/12/2021	<4.0	4.0	---	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	10/6/2021	<4.0	4.0	---	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	4/15/2022	<4.0	4.0	---	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	10/25/2022	<4.0	4.0	---	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	4/3/2023	<4.0	4.0	---	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	10/16/2023	25.6	4.0	0.000	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	4/22/2024	27.6	4.0	0.000	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	10/7/2024	Dry	4.0	0.000	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	4/1/2025	<2.0	4.0	0.000	10	4/22/2024	NA	4/6/2020
MW33	Arsenic	10/13/2025	<2.0	4.0	0.000	10	4/22/2024	NA	4/6/2020

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Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW33	Barium	7/2/2018	127	204.5711	---	2000	NA	NA	4/6/2020
MW33	Barium	10/16/2018	107	204.5711	---	2000	NA	NA	4/6/2020
MW33	Barium	4/17/2019	222	204.5711	---	2000	NA	NA	4/6/2020
MW33	Barium	10/15/2019	140	204.5711	---	2000	NA	NA	4/6/2020
MW33	Barium	4/6/2020	139	204.5711	---	2000	NA	NA	4/6/2020
MW33	Barium	10/13/2020	136	204.5711	---	2000	NA	NA	4/6/2020
MW33	Barium	4/12/2021	127	204.5711	---	2000	NA	NA	4/6/2020
MW33	Barium	10/6/2021	103	204.5711	---	2000	NA	NA	4/6/2020
MW33	Barium	4/15/2022	150	204.5711	105.770	2000	NA	NA	4/6/2020
MW33	Barium	10/25/2022	226	204.5711	88.869	2000	NA	NA	4/6/2020
MW33	Barium	4/3/2023	160	202.4269	100.138	2000	NA	NA	4/6/2020
MW33	Barium	10/16/2023	972	201.4397	0.000	2000	NA	NA	4/6/2020
MW33	Barium	4/22/2024	185	199.5406	0.000	2000	NA	NA	4/6/2020
MW33	Barium	10/7/2024	Dry	272.4527	0.000	2000	NA	NA	4/6/2020
MW33	Barium	4/1/2025	129	271.0573	0.000	2000	NA	NA	4/6/2020
MW33	Barium	10/13/2025	243	270.5859	0.000	2000	NA	NA	4/6/2020

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Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

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Monitoring							SSI		
Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	Initial Exceedance	Resamples Due	5th Background Sample
MW33	Cadmium	7/2/2018	<0.8	0.8	---	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	10/16/2018	<0.8	0.8	---	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	4/17/2019	<0.8	0.8	---	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	10/15/2019	<0.8	0.8	---	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	4/6/2020	<0.8	0.8	---	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	10/13/2020	<0.8	0.8	---	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	4/12/2021	<0.8	0.8	---	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	10/6/2021	<0.8	0.8	---	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	4/15/2022	<0.8	0.8	---	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	10/25/2022	<0.8	0.8	---	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	4/3/2023	0.9	0.8	0.231	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	10/16/2023	6.5	0.8	0.000	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	4/22/2024	1.8	0.8	0.000	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	10/7/2024	Dry	0.8	0.000	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	4/1/2025	0.3	0.8	0.000	5	10/16/2023	NA	4/6/2020
MW33	Cadmium	10/13/2025	<0.2	0.8	0.000	5	10/16/2023	NA	4/6/2020

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KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW33	Cobalt	7/2/2018	<0.8	0.8	---	2.8	7/13/2022	NA	4/6/2020
MW33	Cobalt	10/16/2018	<0.8	0.8	---	2.8	7/13/2022	NA	4/6/2020
MW33	Cobalt	4/17/2019	6.2	0.8	---	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	10/15/2019	<0.8	0.8	---	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	4/6/2020	2.7	0.8	0.000	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	7/1/2020	<0.4	0.8	0.000	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	10/13/2020	<0.4	0.8	0.000	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	4/12/2021	<0.4	0.8	0.000	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	10/6/2021	0.5	0.8	0.099	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	4/15/2022	1.9	0.8	0.000	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	7/13/2022	2.0	0.8	0.000	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	10/25/2022	16.1	0.8	0.000	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	4/3/2023	1.4	0.8	0.000	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	10/16/2023	149.0	0.8	0.000	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	4/22/2024	86.3	0.8	0.000	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	10/7/2024	Dry	0.7	0.000	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	4/1/2025	18.7	0.8	0.000	2.1	7/13/2022	NA	4/6/2020
MW33	Cobalt	10/13/2025	3.5	0.8	0.000	2.1	7/13/2022	NA	4/6/2020

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW33	Nickel	7/2/2018	<4.0	4.3	---	100	4/3/2023	NA	4/6/2020
MW33	Nickel	10/16/2018	<4.0	4.3	---	100	4/3/2023	NA	4/6/2020
MW33	Nickel	4/17/2019	7.5	4.3	---	100	4/3/2023	NA	4/6/2020
MW33	Nickel	10/15/2019	<4.0	4.3	---	100	4/3/2023	NA	4/6/2020
MW33	Nickel	4/6/2020	4.2	4.3	---	100	4/3/2023	NA	4/6/2020
MW33	Nickel	10/13/2020	<4.0	4.3	---	100	4/3/2023	NA	4/6/2020
MW33	Nickel	4/12/2021	<4.0	4.3	---	100	4/3/2023	NA	4/6/2020
MW33	Nickel	10/6/2021	<4.0	4.3	---	100	4/3/2023	NA	4/6/2020
MW33	Nickel	4/15/2022	<4.0	4.3	2.000	100	4/3/2023	NA	4/6/2020
MW33	Nickel	7/13/2022	<4.0	4.3	2.000	100	4/3/2023	NA	4/6/2020
MW33	Nickel	10/25/2022	5.1	4.3	0.952	100	4/3/2023	NA	4/6/2020
MW33	Nickel	4/3/2023	5.8	4.3	1.358	100	4/3/2023	NA	4/6/2020
MW33	Nickel	10/16/2023	46.9	4.3	0.000	100	4/3/2023	NA	4/6/2020
MW33	Nickel	4/22/2024	112.0	4.3	0.000	100	4/3/2023	NA	4/6/2020
MW33	Nickel	10/7/2024	Dry	11.6	0.000	100	4/3/2023	NA	4/6/2020
MW33	Nickel	4/1/2025	15.0	11.6	0.000	100	4/3/2023	NA	4/6/2020
MW33	Nickel	10/13/2025	7.6	11.6	0.000	100	4/3/2023	NA	4/6/2020

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL LCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW33	Bis(2-EH)phthalate	7/2/2018	---	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	10/16/2018	---	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	4/17/2019	---	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	10/15/2019	---	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	4/6/2020	---	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	7/1/2020	---	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	10/13/2020	---	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	4/12/2021	---	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	10/6/2021	---	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	4/15/2022	---	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	7/13/2022	---	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	10/25/2022	55.0	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	4/3/2023	<6.0	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	10/16/2023	<6.0	6.0	---	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	4/22/2024	<6.0	6.0	0.000	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	10/7/2024	---	6.0	0.000	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	4/1/2025	---	6.0	0.000	6	NA	NA	4/22/2024
MW33	Bis(2-EH)phthalate	10/13/2025	---	6.0	0.000	6	NA	NA	4/22/2024

Bold GWPS = A Site Specific GWPS that is equal to the Prediction Limit. All other GWPS are IAC 567-137
 Statewide Standards for Protected Groundwater.

Table 8 - Summary of Ongoing and Newly Identified SSL – **(MW-5)**

Table 8
Summary of Ongoing & Newly Identified SSL
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL UCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	95% UCL (ug/L)	GWPS Limit (ug/L)	SSL Initial Exceedance	Compliance Date 1st Occurrence	Compliance Date Most Recent	Compliance Date Duration (years)
MW5	Arsenic	10/11/2016	28.8	34.196	10.0	NA	NA	NA	NA
MW5	Arsenic	4/13/2017	22	27.693	10.0	NA	NA	NA	NA
MW5	Arsenic	10/25/2017	27	29.625	10.0	NA	NA	NA	NA
MW5	Arsenic	4/11/2018	13.2	30.968	10.0	NA	NA	NA	NA
MW5	Arsenic	10/16/2018	37.5	36.853	10.0	NA	NA	NA	NA
MW5	Arsenic	4/17/2019	27.1	37.926	10.0	NA	NA	NA	NA
MW5	Arsenic	10/15/2019	59.3	57.127	10.0	NA	NA	NA	NA
MW5	Arsenic	4/6/2020	28.5	55.586	10.0	NA	NA	NA	NA
MW5	Arsenic	10/13/2020	30	54.374	10.0	NA	NA	NA	NA
MW5	Arsenic	4/12/2021	56.2	62.926	10.0	NA	NA	NA	NA
MW5	Arsenic	10/6/2021	17.9	52.304	10.0	NA	NA	NA	NA
MW5	Arsenic	4/15/2022	5.3	52.895	10.0	NA	NA	NA	NA
MW5	Arsenic	10/25/2022	9.1	49.558	10.0	NA	NA	NA	NA
MW5	Arsenic	4/3/2023	21.4	22.237	10.0	NA	NA	NA	NA
MW5	Arsenic	10/16/2023	13.7	20.524	10.0	NA	NA	NA	NA
MW5	Arsenic	4/22/2024	15	20.771	10.0	NA	NA	NA	NA
MW5	Arsenic	10/7/2024	10.6	20.518	10.0	NA	NA	NA	NA
MW5	Arsenic	4/1/2025	11.3	15.065	10.0	NA	NA	NA	NA
MW5	Arsenic	10/13/2025	10.3	14.357	10.0	NA	NA	NA	NA

Table 8
Summary of Ongoing & Newly Identified SSL
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI	SSL UCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring		Sample	Each	95% UCL	GWPS	SSL	Compliance Date	Compliance Date	Compliance Date
Well	Compound	Date	Result (ug/L)	(ug/L)	Limit (ug/L)	Initial Exceedance	1st Occurrence	Most Recent	Duration (years)
MW5	Benzene	10/20/2015	6.7	7.164	5.0	NA	NA	NA	NA
MW5	Benzene	4/11/2016	4.6	7.524	5.0	NA	NA	NA	NA
MW5	Benzene	10/11/2016	5.7	7.397	5.0	NA	NA	NA	NA
MW5	Benzene	4/13/2017	4.7	6.583	5.0	NA	NA	NA	NA
MW5	Benzene	10/25/2017	6.2	6.216	5.0	NA	NA	NA	NA
MW5	Benzene	4/11/2018	8.7	8.237	5.0	NA	NA	NA	NA
MW5	Benzene	10/16/2018	5.9	8.351	5.0	NA	NA	NA	NA
MW5	Benzene	4/17/2019	6.6	8.339	5.0	NA	NA	NA	NA
MW5	Benzene	10/15/2019	5.6	8.344	5.0	NA	NA	NA	NA
MW5	Benzene	4/6/2020	5.6	6.480	5.0	NA	NA	NA	NA
MW5	Benzene	10/13/2020	6.3	6.620	5.0	NA	NA	NA	NA
MW5	Benzene	4/12/2021	5.7	6.196	5.0	NA	NA	NA	NA
MW5	Benzene	10/6/2021	4.5	6.407	5.0	NA	NA	NA	NA
MW5	Benzene	4/15/2022	6	6.553	5.0	NA	NA	NA	NA
MW5	Benzene	10/25/2022	5.4	6.162	5.0	NA	NA	NA	NA
MW5	Benzene	4/3/2023	6.5	6.612	5.0	NA	NA	NA	NA
MW5	Benzene	10/16/2023	4.5	6.612	5.0	NA	NA	NA	NA
MW5	Benzene	4/22/2024	3.7	6.441	5.0	NA	NA	NA	NA
MW5	Benzene	10/7/2024	5.2	6.371	5.0	NA	NA	NA	NA
MW5	Benzene	4/1/2025	7.2	6.912	5.0	NA	NA	NA	NA
MW5	Benzene	10/13/2025	7.0	7.716	5.0	NA	NA	NA	NA

Table 9 – Analytical Data Summary

Table 10 – Historic SSI and SSL – **(MW-5)**

Table 10
Historic SSI & SSL
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI

SSL LCL>GWPS	SSL UCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS Limit (ug/L)
MW5	Arsenic	10/11/2016	28.8	4.0	15.354	34.196	10.0
MW5	Arsenic	4/13/2017	22	4.0	15.807	27.693	10.0
MW5	Arsenic	10/25/2017	27	4.0	18.475	29.625	10.0
MW5	Arsenic	4/11/2018	13.2	4.0	14.532	30.968	10.0
MW5	Arsenic	10/16/2018	37.5	4.0	12.997	36.853	10.0
MW5	Arsenic	4/17/2019	27.1	4.0	14.474	37.926	10.0
MW5	Arsenic	10/15/2019	59.3	4.0	11.423	57.127	10.0
MW5	Arsenic	4/6/2020	28.5	4.0	20.614	55.586	10.0
MW5	Arsenic	10/13/2020	30	4.0	18.076	54.374	10.0
MW5	Arsenic	4/12/2021	56.2	4.0	24.074	62.926	10.0
MW5	Arsenic	10/6/2021	17.9	4.0	13.996	52.304	10.0
MW5	Arsenic	4/15/2022	5.3	4.0	1.805	52.895	10.0
MW5	Arsenic	10/25/2022	9.1	4.0	0.000	49.558	10.0
MW5	Arsenic	4/3/2023	21.4	4.0	4.613	22.237	10.0
MW5	Arsenic	10/16/2023	13.7	4.0	4.226	20.524	10.0
MW5	Arsenic	4/22/2024	15	4.0	8.829	20.771	10.0
MW5	Arsenic	10/7/2024	10.6	4.0	9.832	20.518	10.0
MW5	Arsenic	4/1/2025	11.3	4.0	10.235	15.065	10.0
MW5	Arsenic	10/13/2025	10.3	4.0	9.243	14.357	10.0

Table 10
Historic SSI & SSL
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY:	SSI

SSL LCL>GWPS	SSL UCL>GWPS

Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS Limit (ug/L)
MW5	Benzene	10/20/2015	6.7	1.0	6.316	7.164	5.0
MW5	Benzene	4/11/2016	4.6	1.0	4.876	7.524	5.0
MW5	Benzene	10/11/2016	5.7	1.0	4.698	7.397	5.0
MW5	Benzene	4/13/2017	4.7	1.0	4.267	6.583	5.0
MW5	Benzene	10/25/2017	6.2	1.0	4.384	6.216	5.0
MW5	Benzene	4/11/2018	8.7	1.0	4.323	8.237	5.0
MW5	Benzene	10/16/2018	5.9	1.0	4.399	8.351	5.0
MW5	Benzene	4/17/2019	6.6	1.0	5.361	8.339	5.0
MW5	Benzene	10/15/2019	5.6	1.0	5.056	8.344	5.0
MW5	Benzene	4/6/2020	5.6	1.0	5.370	6.480	5.0
MW5	Benzene	10/13/2020	6.3	1.0	5.430	6.620	5.0
MW5	Benzene	4/12/2021	5.7	1.0	5.404	6.196	5.0
MW5	Benzene	10/6/2021	4.5	1.0	4.634	6.407	5.0
MW5	Benzene	4/15/2022	6	1.0	4.697	6.553	5.0
MW5	Benzene	10/25/2022	5.4	1.0	4.638	6.162	5.0
MW5	Benzene	4/3/2023	6.5	1.0	4.588	6.612	5.0
MW5	Benzene	10/16/2023	4.5	1.0	4.588	6.612	5.0
MW5	Benzene	4/22/2024	3.7	1.0	3.609	6.441	5.0
MW5	Benzene	10/7/2024	5.2	1.0	3.579	6.371	5.0
MW5	Benzene	4/1/2025	7.2	1.0	3.388	6.912	5.0
MW5	Benzene	10/13/2025	7.0	1.0	3.834	7.716	5.0

Table 11 – Corrective Action - **ACM Tile Outlet & PECS-1**

Table 11
ACM Tile Outlet & PECS Evaluation
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

Date	ACM Tile 1				PECS-1	
	Arsenic Concentration (ug/L)	Arsenic GWPS (ug/L)	VOC Concentration (ug/L)	VOC GWPS (ug/L)	VOC Concentration (ug/L)	VOC GWPS (ug/L)
10/13/2020	<4	10	ND	<1 to <5	ND	<1 to <5
4/12/2021	<4	10	ND	<1 to <5	ND	<1 to <5
10/6/2021	<4	10	ND	<1 to <5	ND	<1 to <5
4/14/2022	<4	10	ND	<1 to <5	ND	<1 to <5
10/25/2022	<4	10	ND	<1 to <5	ND	<1 to <5
4/3/2023	<4	10	ND	<1 to <5	ND	<1 to <5
10/16/2023	<4	10	ND	<1 to <5	ND	<1 to <5
4/22/2024	<4	10	ND	<1 to <5	ND	<1 to <5
10/7/2024	Dry	10	Dry	<1 to <5	ND	<1 to <5
4/1/2025	<2	10	ND	<1 to <5	ND	<1 to <5
10/13/2025	Dry	10	Dry	<1 to <5	Dry	<1 to <5

***ND** = Non-detected and reported below the applicable method reporting limit (MRL)*

Table 12 – Corrective Action - **Gas Vents 19-27**

Table 12
CAMP Vent Gas Evaluation
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

KEY: 101 = a value that exceeds 100% of the LEL

%LEL											
										west	east
Date	Vent 19	Vent 20	Vent 21	Vent 22	Vent 23	Vent 24	Vent 25	Vent 26	Vent 27		
10/15/2020	0	0	0	0	0	25	12	4	0		
1/12/2021	0	0	0	3	0	74	45	5	0		
4/12/2021	0	0	0	0	2.2	101	101	46	0		
7/1/2021	0	0	0	0	0	101	101	39	0		
10/6/2021	0	0	0	0	0	101	101	34.5	0		
1/18/2022	0	0	0	0	0	101	101	39.8	0		
4/15/2022	0	0	0	0	8.6	101	101	60.5	0		
7/13/2022	0	0	0	0	0	101	101	34.2	0		
10/25/2022	0	0	31.3	0	2.6	101	101	44.7	0		
1/9/2023	0	0	0	0	0	101	101	50	0		
4/3/2023	0	0	0	0	7.6	101	101	101	0		
7/10/2023	0	0	0	0	0	101	101	46.2	0		
10/16/2023	0	0	0	0	0	101	101	43	0		
1/22/2024	0	0	0	0	0	101	101	36.6	0		
4/22/2024	0	0	0	0	3.2	101	101	63.2	0		
7/24/2024	0	0	0	0	0	101	101	50	0		
10/7/2024	0	0	0	0	0	101	101	0	0		
1/17/2025	0	0	0	0	0	101	101	39.4	0		
4/1/2025	0	0	0	0	0	101	101	50	0		
7/9/2025	0	0	0	0	0	101	101	50	0		
10/7/2025	0	0	0	0	0	101	101	4.4	0		

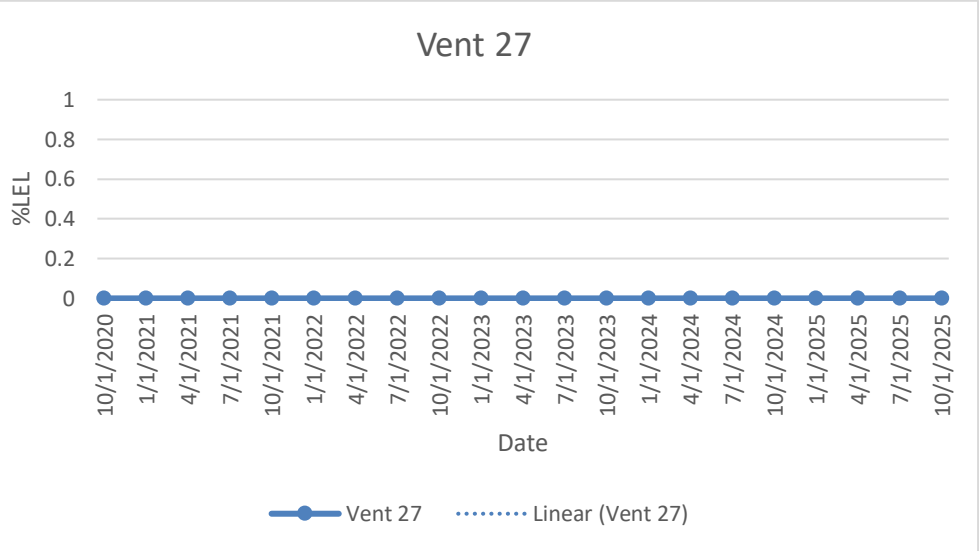
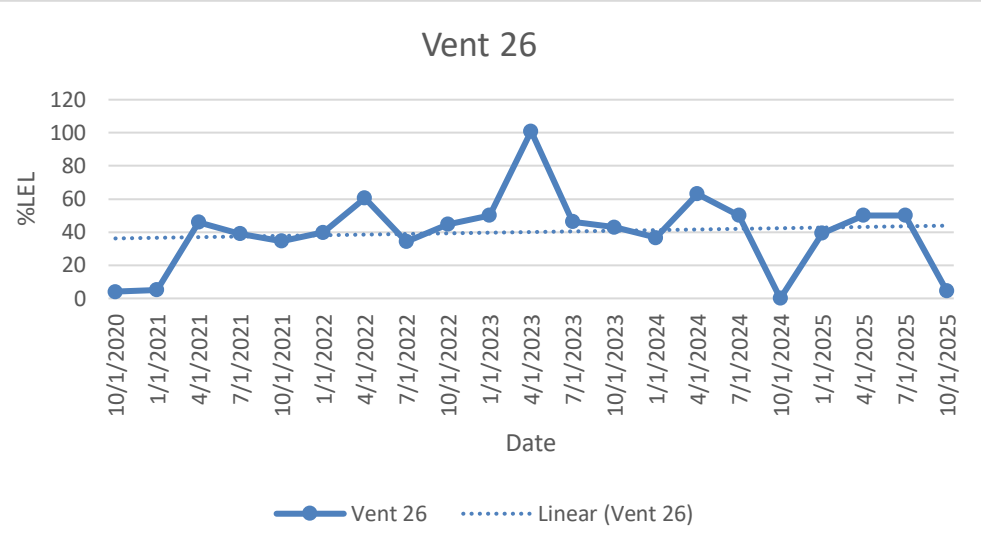
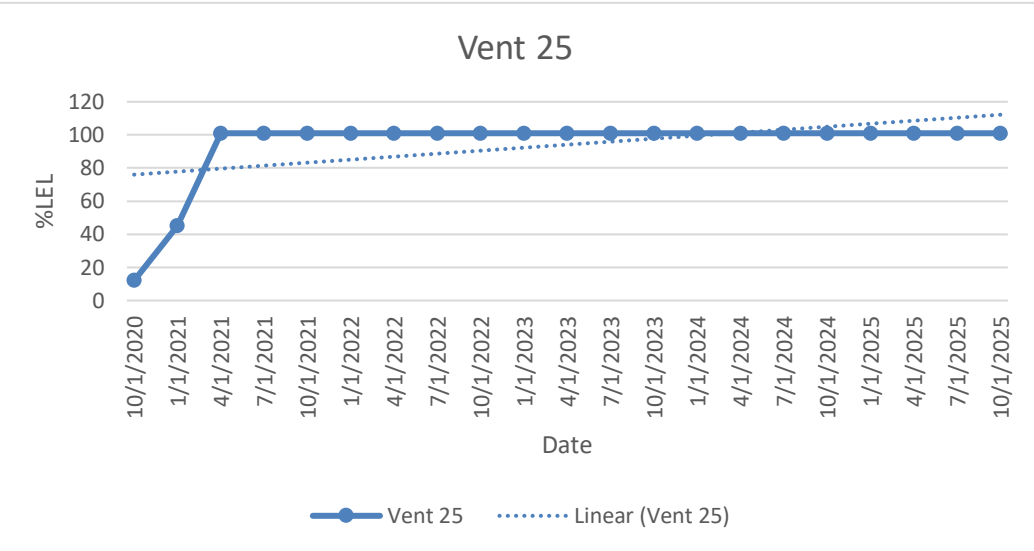
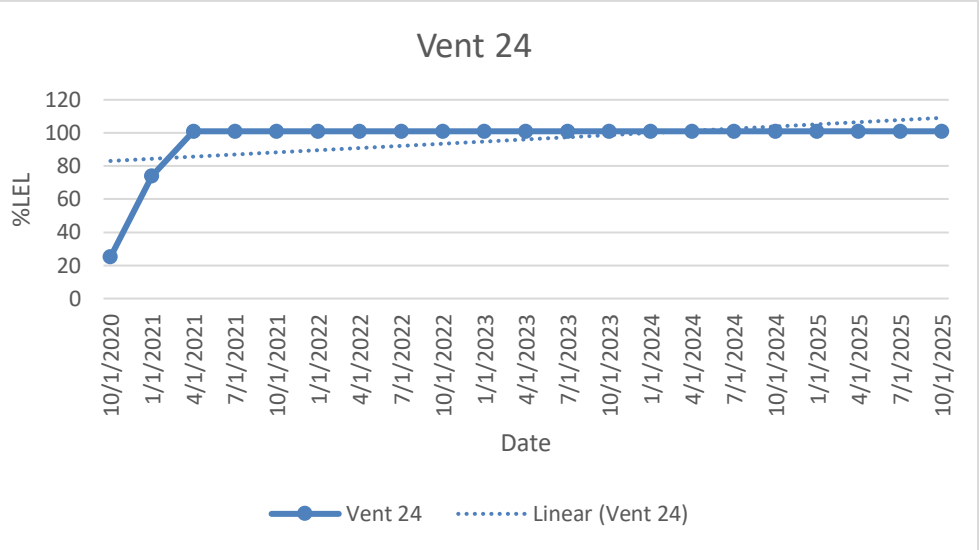
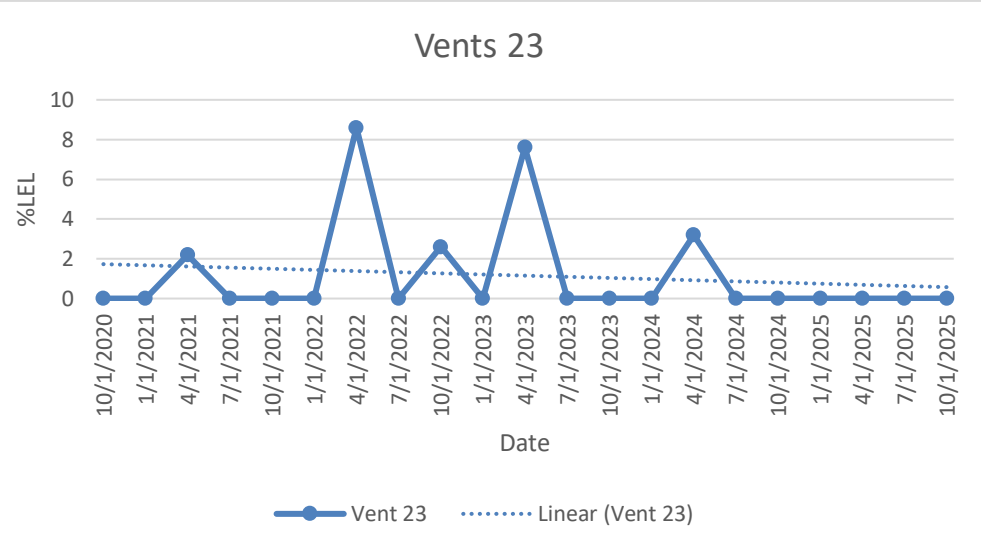
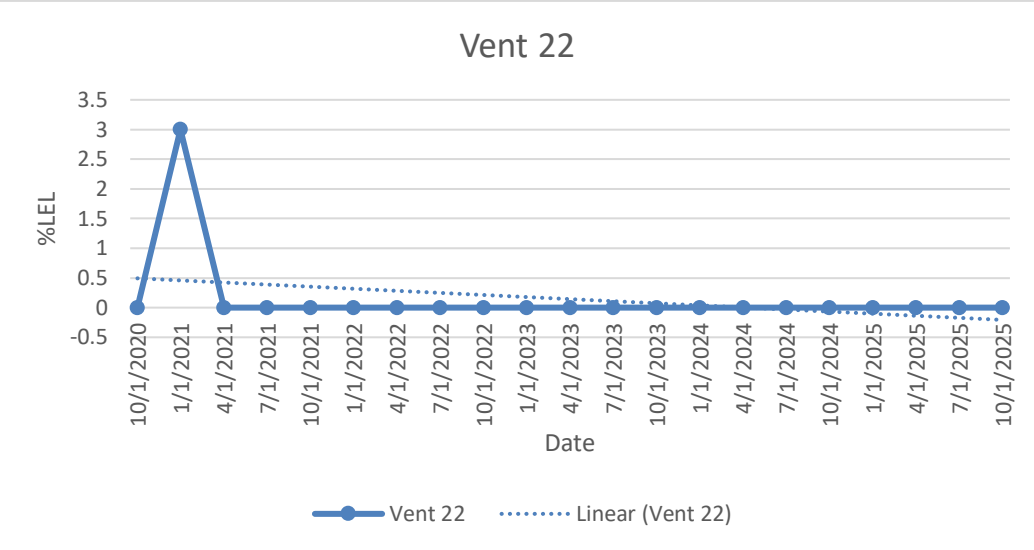
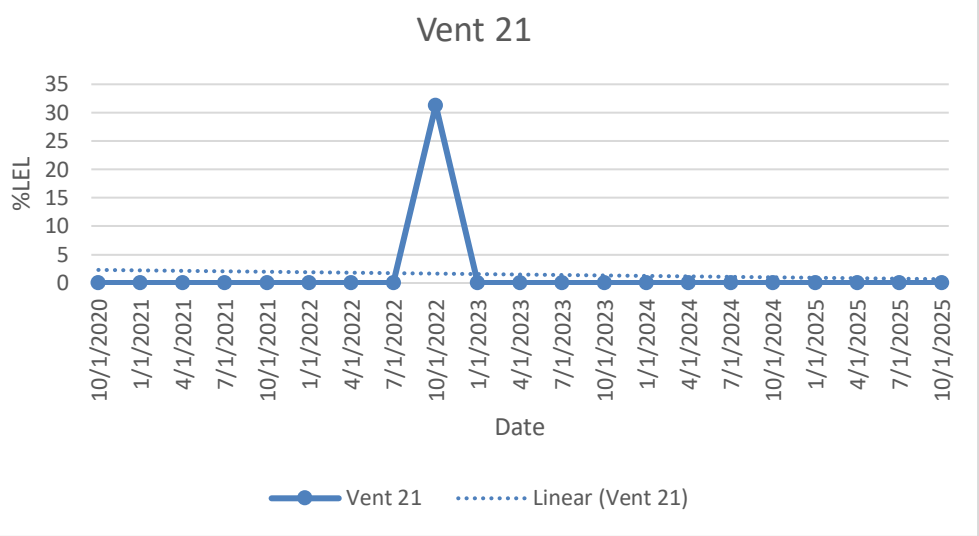
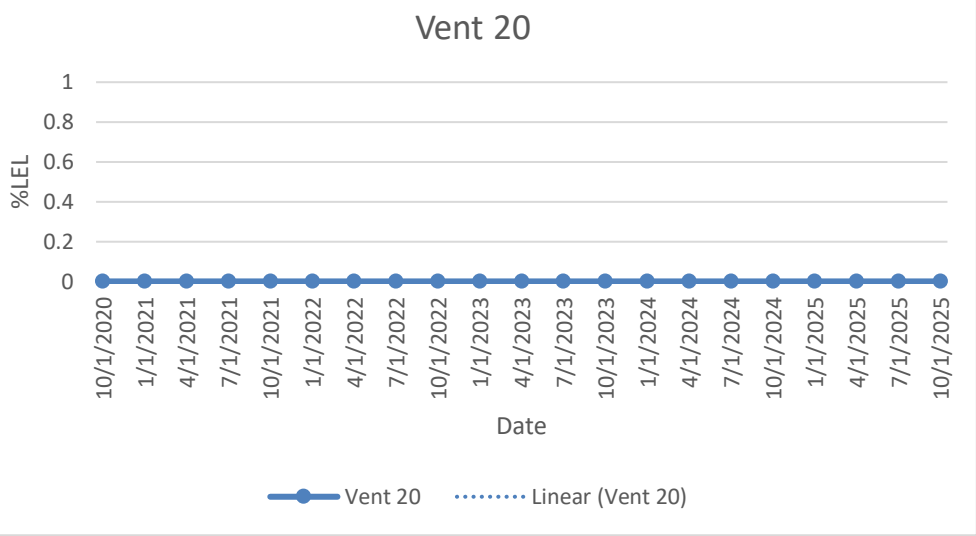
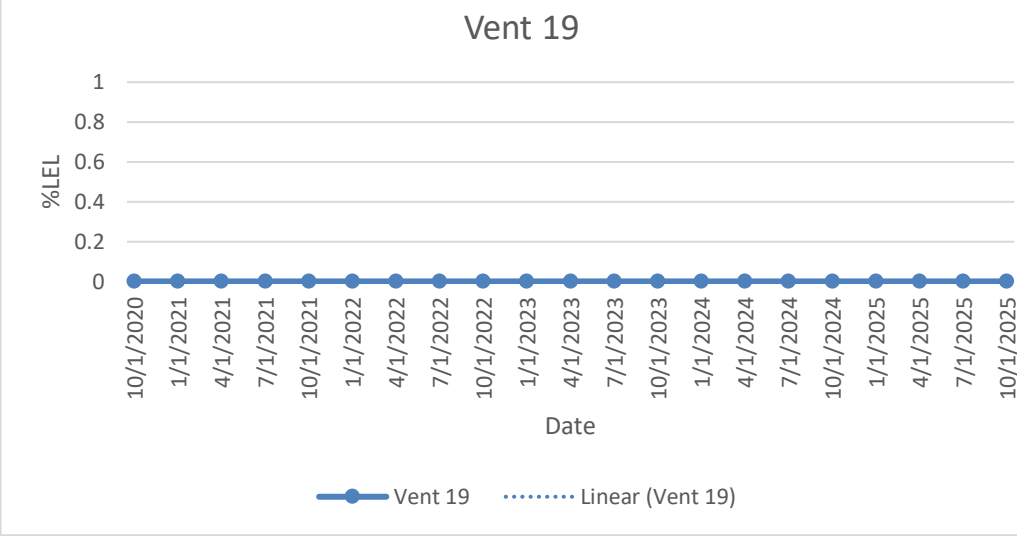


Table 13 – Corrective Action - **MW-5 Methane, Ethane, Ethene**

Table 13
Methane, Ethane, Ethene, Alkalinity, and pH over Time
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

	Methane	Ethane	Ethene	Alkalinity	pH
	MW-5	MW-5	MW-5	MW-5	MW-5
Sample Date	mg/L	mg/L	mg/L	mg/l	ug/L
7/23/2019	5.06	<0.010	<0.010		
4/13/2021				688	7
10/6/2021	1.29	<0.00773	<0.00828	645	6.5
4/14/2022				485	6.4
10/25/2022	2.35	<0.00773	<0.00828	612	6.4
10/16/2023	1.25	<0.00773	<0.00828	663	6.4
10/7/2024	1.52	<0.005	<0.005	138	6.3
10/13/2025	3.81	<0.005	<0.005	658	6.3

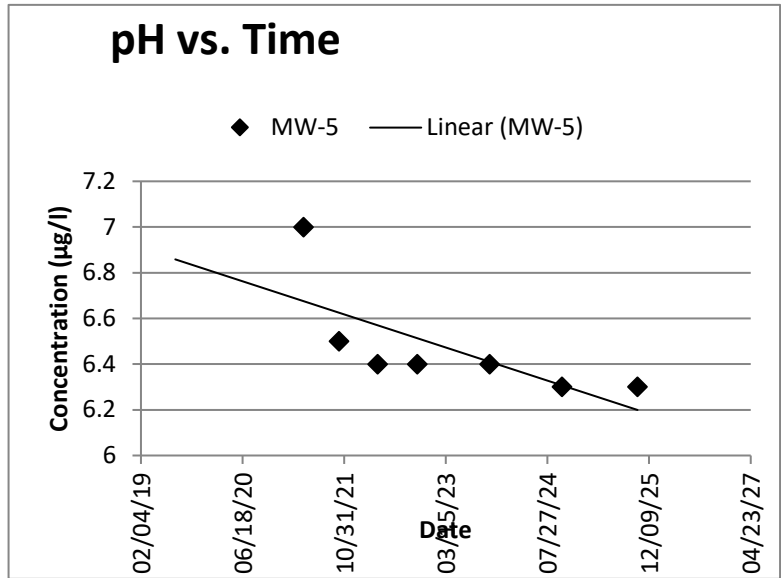
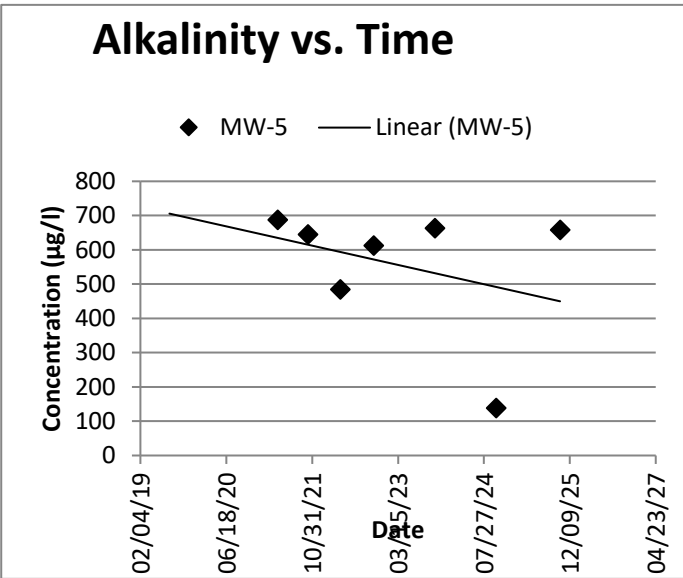
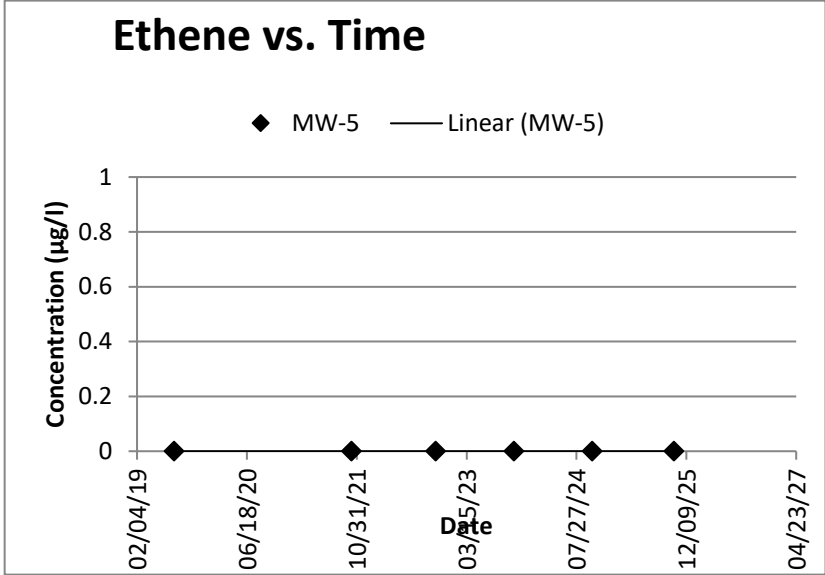
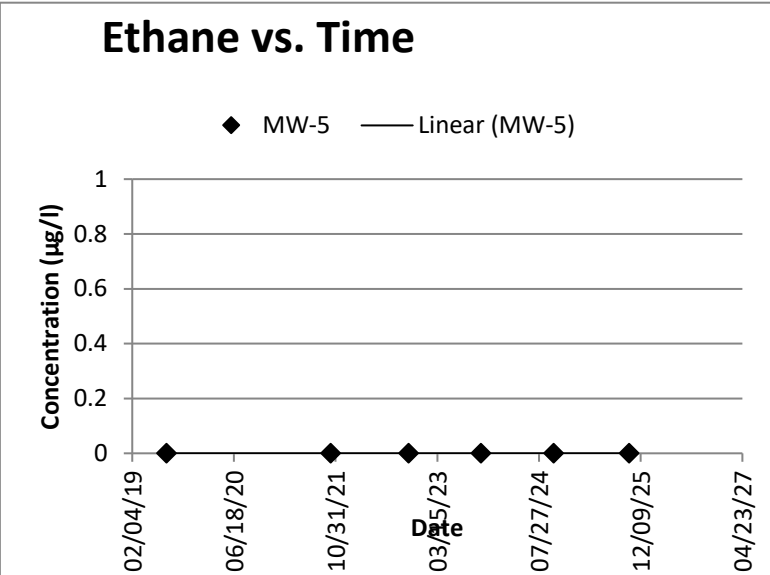
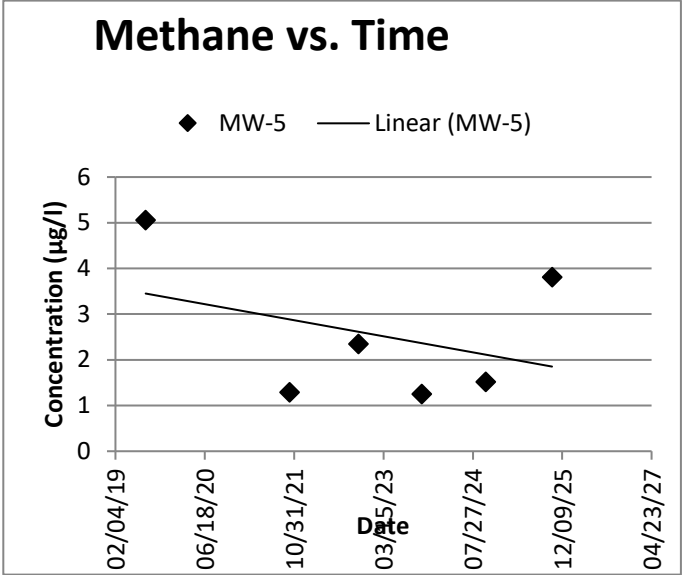


Table 14 – Leachate Levels - **Current Year**

Table 14
Leachate Level Summary
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

	1/17/2025		4/1/2025		7/9/2025		10/13/2025	
Existing Well ID	Depth to Leachate (ft)	Leachate Thickness (ft)	Depth to Leachate (ft)	Leachate Thickness (ft)	Depth to Leachate (ft)	Leachate Thickness (ft)	Depth to Leachate (ft)	Leachate Thickness (ft)
North Manhole	22.76	4.24	22.7	4.3	23.1	3.9	22.95	4.05
South Manhole	20.4	4.6	20.2	4.8	20.05	4.95	20.24	4.76
NEX SE Riser	32.6	6.8	35.9	3.5	33.9	5.5	39.4	0
LHPZ-9	56.23	0.07	56.2	0.1	56.18	0.12	56.18	0.12
LHPZ-10	46.86	9.14	44.9	11.1	46.13	9.87	46.75	9.25

Existing Well ID	ORIGINAL Depth (ft)	Top Elevation	Top Liner Elevation
North Manhole	27		
South Manhole	25		
NEX SE Riser	39.4		
LHPZ-9	56.3	1154.19	1097.84
LHPZ-10	56	1155.31	1099.31

Table 14A – Leachate Levels – **Over Time**

Table 14A
Leachate Level Summary
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

	North Manhole			South Manhole			NEX SE Riser - Sump			LPZ-9			LPZ-10		
	ORIGINAL Depth of Monitoring Point (ft)	Depth to Leachate (ft)	Leachate Thickness (ft)	ORIGINAL Depth of Monitoring Point (ft)	Depth to Leachate (ft)	Leachate Thickness (ft)	ORIGINAL Depth of Monitoring Point (ft)	Depth to Leachate (ft)	Leachate Thickness (ft)	ORIGINAL Depth of Monitoring Point (ft)	Depth to Leachate (ft)	Leachate Thickness (ft)	ORIGINAL Depth of Monitoring Point (ft)	Depth to Leachate (ft)	Leachate Thickness (ft)
Date															
7/9/2015	27.00	24.70	2.30	25.00	18.60	6.40	39.40	19.30	20.10	56.30	56.30	0.00	56.00	48.50	7.50
10/20/2015	27.00	24.70	2.30	25.00	19.10	5.90	39.40	19.20	20.20	56.30	56.30	0.00	56.00	45.25	10.75
1/11/2016	27.00	24.70	2.30	25.00	19.70	5.30	39.40	19.30	20.10	56.30	56.30	0.00	56.00	43.60	12.40
4/11/2016	27.00	21.50	5.50	25.00	18.70	6.30	39.40	39.40	0.00	56.30	56.30	0.00	56.00	43.80	12.20
7/13/2016	27.00	22.50	4.50	25.00	19.07	5.93	39.40	39.40	0.00	56.30	56.30	0.00	56.00	44.60	11.40
10/12/2016	27.00	21.65	5.35	25.00	18.70	6.30	39.40	39.40	0.00	56.30	56.30	0.00	56.00	44.50	11.50
1/24/2017	27.00	21.60	5.40	25.00	18.30	6.70	39.40	39.40	0.00	56.30	56.30	0.00	56.00	47.70	8.30
4/13/2017	27.00	21.50	5.50	25.00	18.45	6.55	39.40	39.40	0.00	56.30	56.30	0.00	56.00	44.58	11.42
7/10/2017	27.00	21.55	5.45	25.00	18.18	6.82	39.40	39.40	0.00	56.30	56.30	0.00	56.00	44.30	11.70
10/26/2017	27.00	21.60	5.40	25.00	18.31	6.69	39.40	39.40	0.00	56.30	56.30	0.00	56.00	43.80	12.20
1/18/2018	27.00	22.50	4.50	25.00	22.10	2.90	39.40	39.40	0.00	56.30	56.30	0.00	56.00	frozen	NR
4/11/2018	27.00	22.55	4.45	25.00	19.50	5.50	39.40	39.35	0.05	56.30	56.30	0.00	56.00	43.08	12.92
7/2/2018	27.00	21.94	5.06	25.00	19.00	6.00	39.40	39.40	0.00	56.30	56.30	0.00	56.00	44.45	11.55
10/16/2018	27.00	21.60	5.40	25.00	18.70	6.30	39.40	39.40	0.00	56.30	56.30	0.00	56.00	44.45	11.55
1/25/2019	27.00	21.60	5.40	25.00	19.60	5.40	39.40	39.40	0.00	56.30	56.25	0.05	56.00	46.70	9.30
4/17/2019	27.00	21.10	5.90	25.00	18.55	6.45	39.40	39.40	0.00	56.30	55.80	0.50	56.00	42.75	13.25
7/23/2019	27.00	20.70	6.30	25.00	18.95	6.05	39.40	39.40	0.00	56.30	56.30	0.00	56.00	44.85	11.15
10/15/2019	27.00	22.70	4.30	25.00	18.78	6.22	39.40	39.40	0.00	56.30	56.30	0.00	56.00	44.85	11.15
1/21/2020	27.00	21.60	5.40	25.00	19.20	5.80	39.40	39.40	0.00	56.30	56.30	0.00	56.00	45.30	10.70
4/6/2020	27.00	22.70	4.30	25.00	17.40	7.60	39.40	35.80	3.60	56.30	56.20	0.10	56.00	43.30	12.70
7/1/2020	27.00	22.70	4.30	25.00	19.00	6.00	39.40	39.40	0.00	56.30	56.27	0.03	56.00	44.45	11.55
10/13/2020	27.00	22.70	4.30	25.00	19.70	5.30	39.40	34.50	4.90	56.30	56.15	0.15	56.00	44.55	11.45
1/12/2021	27.00	21.92	5.08	25.00	19.90	5.10	39.40	32.30	7.10	56.30	56.20	0.10	56.00	45.50	10.50
4/12/2021	27.00	22.60	4.40	25.00	19.60	5.40	39.40	29.70	9.70	56.30	56.20	0.10	56.00	42.65	13.35
7/1/2021	27.00	22.60	4.40	25.00	20.10	4.90	39.40	28.50	10.90	56.30	56.14	0.16	56.00	45.91	10.09
10/6/2021	27.00	23.05	3.95	25.00	24.40	0.60	39.40	39.40	0.00	56.30	56.30	0.00	56.00	50.60	5.40
1/18/2022	27.00	22.03	4.97	25.00	19.90	5.10	39.40	34.90	4.50	56.30	56.20	0.10	56.00	44.33	11.67
4/15/2022	27.00	22.60	4.40	25.00	19.95	5.05	39.40	33.00	6.40	56.30	56.20	0.10	56.00	45.90	10.10
7/13/2022	27.00	22.51	4.49	25.00	20.13	4.87	39.40	39.40	0.00	56.30	56.17	0.13	56.00	45.57	10.43
10/25/2022	27.00	22.20	4.80	25.00	10.40	14.60	39.40	39.40	0.00	56.30	56.30	0.00	56.00	46.30	9.70
1/9/2023	27.00	19.60	7.40	25.00	20.35	4.65	39.40	39.40	0.00	56.30	56.20	0.10	56.00	45.90	10.10
4/3/2023	27.00	24.10	2.90	25.00	20.10	4.90	39.40	34.30	5.10	56.30	56.30	0.00	56.00	45.61	10.39
7/10/2023	27.00	23.60	3.40	25.00	20.30	4.70	39.40	29.55	9.85	56.30	56.15	0.15	56.00	46.45	9.55
10/16/2023	27.00	24.35	2.65	25.00	20.60	4.40	39.40	28.00	11.40	56.30	56.30	0.00	56.00	47.20	8.80
1/22/2024	27.00	23.50	3.50	25.00	20.80	4.20	39.40	39.40	0.00	56.30	56.20	0.10	56.00	46.90	9.10
4/22/2024	27.00	25.05	1.95	25.00	20.15	4.85	39.40	16.20	23.20	56.30	56.20	0.10	56.00	45.80	10.20
7/24/2024	27.00	24.03	2.97	25.00	20.05	4.95	39.40	32.50	6.90	56.30	56.20	0.10	56.00	46.42	9.58
10/7/2024	27.00	23.80	3.20	25.00	20.46	4.54	39.40	37.70	1.70	56.30	56.20	0.10	56.00	47.19	8.81
1/17/2025	27.00	22.70	4.30	25.00	20.40	4.60	39.40	32.60	6.80	56.30	56.23	0.07	56.00	46.86	9.14
4/1/2025	27.00	22.70	4.30	25.00	20.20	4.80	39.40	35.90	3.50	56.30	56.20	0.10	56.00	44.90	11.10
7/9/2025	27.00	23.10	3.90	25.00	20.05	4.95	39.40	33.90	5.50	56.30	56.18	0.12	56.00	46.13	9.87
10/13/2025	27.00	22.95	4.05	25.00	20.24	4.76	39.40	39.40	0.00	56.30	56.18	0.12	56.00	46.75	9.25
Maximum			7.40			14.60			23.20			0.50			13.35
Minimum			1.95			0.60			0.00			0.00			5.40
Standard Deviation			1.16			1.82			6.41			0.09			1.58

Table 15 – Annual Gas Monitoring Summary

Table 15
Annual Methane Gas Evaluation Report
Annual Water Quality Report
Fayette County Sanitary Landfill
Permit No. 33-SDP-02-83C

Readings are % LEL

Location/Date	1/17/25	4/1/25	7/9/25	10/13/25
GMW-1	0	0	0	0
GMW-2	0	0	0	0
LPZ-9	OL	OL	OL	OL
LPZ-10	64.2	OL	OL	OL
MW-24	0	0	0	0
MW-26	0	0	0	0
NEX SE End	3.2	0	0	0
NEX NW End	OL	OL	OL	OL
S. Leachate Manhole	OL	12.4	94.4	OL
N. Leachate Manhole	66.7	44	31.8	10.5
LS (beehive)	0	0	0	0
LS2 (riser with wooden top)	0	0	0	0
Transfer Station Buildings	0	0	0	0
VENTS:				
1	OL	45.2	OL	13.6
2	5.0	0	OL	58.1
3	OL	OL	OL	OL
4	37	3.3	86.5	18.1
5	OL	0	OL	66.4
6	OL	OL	OL	OL
7	0	50	0	0
8	OL	OL	OL	OL
9	0	0	0	0
10	0	0	0	0
11	OL	50	OL	57
12	OL	OL	OL	OL
13	OL	OL	OL	OL
14	0	0	0	0
15	OL	OL	OL	OL
16	OL	OL	OL	79.3
17	OL	OL	OL	OL
18	OL	OL	OL	OL

OL - Over Limit

(1) Buried in snow

Table 15A – Gas Monitoring – **Perimeter Subsurface & Buildings (over time)**

Table 15A**Gas Monitoring - Perimeter Subsurface Gas Monitoring Points (IAC 113.9(2)"a"(2))****Fayette County Sanitary Landfill****Permit No. 33-SDP-02-83C****Key****OL = Over Limit of Instrument > 100% LEL.****DNE = Did Not Exist****Detection****Measurements are in %LEL.**

Perimeter & Site Building Monitoring Points					
Date	GMW1	GMW2	MW-24	MW-26	Transfer Station
7/9/2015	0.0	0.0	0.0	0.0	0.0
10/20/2015	0.0	0.0	0.0	0.0	0.0
1/11/2016	0.0	0.0	0.0	0.0	0.0
4/11/2016	0.0	0.0	0.0	0.0	0.0
7/13/2016	0.0	0.0	0.0	0.0	0.0
10/12/2016	0.0	0.0	0.0	0.0	0.0
1/24/2017	0.0	0.0	0.0	0.0	0.0
4/13/2017	0.0	0.0	0.0	0.0	0.0
7/10/2017	0.0	0.0	0.0	0.0	0.0
10/26/2017	0.0	0.0	0.0	0.0	0.0
1/18/2018	0.0	0.0	0.0	0.0	0.0
4/11/2018	0.0	0.0	0.0	0.0	0.0
7/2/2018	0.0	0.0	0.0	0.0	0.0
10/16/2018	0.0	0.0	0.0	0.0	0.0
1/25/2019	0.0	0.0	0.0	0.0	0.0
4/17/2019	0.0	0.0	0.0	0.0	0.0
7/23/2019	0.0	0.0	0.0	0.0	0.0
10/15/2019	0.0	0.0	0.0	0.0	0.0
1/21/2020	0.0	0.0	0.0	0.0	0.0
4/6/2020	0.0	0.0	0.0	0.0	0.0
7/1/2020	0.0	0.0	0.0	0.0	0.0
10/13/2020	0.0	0.0	0.0	0.0	0.0
1/12/2021	0.0	0.0	0.0	0.0	0.0
4/12/2021	0.0	0.0	0.0	0.0	0.0
7/1/2021	0.0	0.0	0.0	0.0	0.0
10/6/2021	0.0	0.0	0.0	0.0	0.0
1/18/2022	0.0	0.0	0.0	0.0	0.0
4/15/2022	0.0	0.0	0.0	0.0	0.0
7/13/2022	0.0	0.0	0.0	0.0	0.0
10/25/2022	0.0	0.0	0.0	0.0	0.0
1/9/2023	0.0	0.0	0.0	0.0	0.0
4/3/2023	0.0	0.0	0.0	0.0	0.0
7/10/2023	0.0	0.0	0.0	0.0	0.0
10/16/2023	0.0	0.0	0.0	0.0	0.0
1/22/2024	0.0	0.0	0.0	0.0	0.0
4/22/2024	0.0	0.0	0.0	0.0	0.0
7/24/2024	0.0	0.0	0.0	0.0	0.0
10/7/2024	0.0	0.0	0.0	0.0	0.0
1/17/2025	0.0	0.0	0.0	0.0	0.0
4/1/2025	0.0	0.0	0.0	0.0	0.0
7/9/2025	0.0	0.0	0.0	0.0	0.0
10/13/2025	0.0	0.0	0.0	0.0	0.0

Table 15B – Gas Monitoring – **Gas Control & Recovery Components (over time)**

Table 15B

Gas Monitoring - Control or Recovery System Components (IAC 113.9(2)"a"(1))

Fayette County Sanitary Landfill

Permit No. 33-SDP-02-83C

Key

OL = Over Limit of Instrument > 100% LEL.

DNE = Did Not Exist

Detection

Measurements are in %LEL.

Leachate Control System Components								
Date	LPZ-9	LPZ-10	NEX - SE	NEX - NW	South Manhole	North Manhole	LS Beehive	LS2 Wood Top
7/9/2015	50.0	32.0	0.0	59.0	14.0	6.0	0.0	NM
10/20/2015	3.0	3.0	30.0	0.0	29.0	7.0	0.0	0.0
1/11/2016	21.0	42.0	0.0	50.0	31.0	8.0	0.0	0.0
4/11/2016	62.0	10.0	0.0	55.0	26.0	5.0	0.0	0.0
7/13/2016	53.0	26.0	0.0	61.0	17.0	8.0	0.0	0.0
10/12/2016	66.0	18.0	61.0	65.0	8.0	12.0	0.0	0.0
1/24/207	39.0	24.0	3.0	50.0	17.0	43.0	Frozen	0.0
4/13/2017	27.0	73.0	8.0	80.0	30.0	21.0	0.0	0.0
7/10/2017	16.0	44.0	0.0	70.0	8.0	16.0	0.0	0.0
10/26/2017	16.0	58.0	10.0	75.0	55.0	35.0	0.0	0.0
1/18/2018	11.0	OL	10.0	86.0	58.0	OL	Frozen	Frozen
4/11/2018	OL	7.0	0.0	63.0	5.0	87.0	0.0	0.0
7/2/2018	40.0	38.0	0.0	54.0	13.0	50.0	0.0	0.0
10/16/2018	9.0	7.0	0.0	12.0	14.0	16.0	0.0	0.0
1/25/2019	32.0	89.0	0.0	76.0	OL	71.0	0.0	0.0
4/17/2019	OL	12.0	0.0	7.0	9.0	8.0	0.0	0.0
7/23/2019	22.0	86.0	0.0	OL	3.0	13.0	0.0	0.0
10/15/2019	OL	OL	0.0	35.0	16.0	23.0	0.0	0.0
1/21/2020	73.0	OL	0.0	OL	OL	OL	0.0	0.0
4/6/2020	16.0	OL	0.0	OL	3.0	45.0	0.0	0.0
7/1/2020	OL	99.0	4.0	22.0	17.0	72.0	6.0	0.0
10/13/2020	OL	OL	0.0	17.0	26.0	43.0	0.0	0.0
1/12/2021	85.0	OL	0.0	30.0	73.0	14.0	0.0	0.0
4/12/2021	OL	OL	0.0	28.4	20.8	6.2	0.0	0.0
7/1/2021	OL	90.0	0.0	0.0	OL	50.0	0.0	0.0
10/6/2021	OL	OL	0.0	OL	32.5	OL	0.0	0.0
1/18/2022	OL	OL	0.0	OL	14.1	30.5	0.0	0.0
4/15/2022	OL	OL	4.4	50.0	41.0	17.8	0.0	0.0
7/13/2022	OL	OL	0.0	OL	50.0	5.0	0.0	0.0
10/25/2022	OL	OL	0.0	60.7	42.9	19.2	0.0	0.0
1/9/2023	OL	OL	0.0	OL	50.0	31.2	0.0	0.0
4/3/2023	OL	OL	0.0	OL	36.8	50.0	0.0	0.0
7/10/2023	OL	OL	0.0	OL	OL	93.6	0.0	0.0
10/16/2023	OL	OL	0.0	OL	OL	26.8	0.0	0.0
1/22/2024	OL	OL	0.0	OL	50.0	OL	0.0	Frozen
4/22/2024	OL	OL	0.0	OL	25.2	41.6	0.0	0.0
7/24/2024	OL	OL	0.0	OL	OL	90.9	0.0	0.0
10/7/2024	OL	OL	0.0	OL	63.2	27.9	0.0	0.0
1/17/2025	OL	64.2	3.2	OL	OL	66.7	0.0	0.0
4/1/2025	OL	OL	0.0	OL	12.4	44.0	0.0	0.0
7/9/2025	OL	OL	0.0	OL	94.4	31.8	0.0	0.0
10/13/2025	OL	OL	0.0	OL	OL	10.5	0.0	0.0

Table 15B

Gas Monitoring - Control or Recovery System Components (IAC 113.9(2)"a"(1))

Fayette County Sanitary Landfill

Permit No. 33-SDP-02-83C

Key

OL = Over Limit of Instrument > 100% LEL.

DNE = Did Not Exist

Detection

Measurements are in %LEL.

Landfill Cap Vents																		
Date	Vent 1	Vent 2	Vent 3	Vent 4	Vent 5	Vent 6	Vent 7	Vent 8	Vent 9	Vent 10	Vent 11	Vent 12	Vent 13	Vent 14	Vent 15	Vent 16	Vent 17	Vent 18
7/9/2015	0.0	17.0	14.0	10.0	0.0	23.0	0.0	0.0	0.0	8.0	28.0	0.0	24.0	0.0	13.0	16.0	10.0	32.0
10/20/2015	5.0	18.0	12.0	0.0	0.0	17.0	0.0	5.0	0.0	0.0	5.0	0.0	16.0	0.0	12.0	0.0	0.0	15.0
1/11/2016	0.0	15.0	5.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	12.0	0.0	14.0	0.0	18.0	11.0
4/11/2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	0.0	10.0	0.0	22.0	0.0	24.0	13.0	55.0	14.0
7/13/2016	12.0	0.0	3.0	9.0	0.0	21.0	0.0	0.0	0.0	0.0	14.0	50.0	14.0	0.0	0.0	25.0	0.0	0.0
10/12/2016	0.0	0.0	3.0	0.0	3.0	4.0	0.0	31.0	0.0	0.0	11.0	29.0	12.0	0.0	60.0	23.0	3.0	23.0
1/24/207	0.0	10.0	0.0	6.0	17.0	5.0	0.0	20.0	0.0	4.0	21.0	32.0	39.0	0.0	20.0	41.0	4.0	69.0
4/13/2017	0.0	12.0	0.0	0.0	0.0	41.0	0.0	61.0	0.0	0.0	23.0	20.0	42.0	0.0	57.0	0.0	61.0	34.0
7/10/2017	11.0	22.0	0.0	3.0	5.0	4.0	29.0	76.0	0.0	0.0	10.0	15.0	26.0	0.0	58.0	67.0	57.0	63.0
10/26/2017	28.0	12.0	27.0	17.0	0.0	6.0	21.0	9.0	0.0	0.0	45.0	62.0	20.0	0.0	90.0	95.0	62.0	5.0
1/18/2018	0.0	OL	24.0	17.0	7.0	10.0	19.0	10.0	0.0	10.0	OL	27.0	50.0	0.0	12.0	84.0	11.0	55.0
4/11/2018	0.0	28.0	0.0	6.0	OL	28.0	0.0	18.0	0.0	0.0	31.0	21.0	18.0	10.0	26.0	OL	4.0	77.0
7/2/2018	18.0	12.0	4.0	0.0	0.0	76.0	0.0	15.0	0.0	0.0	45.0	15.0	86.0	0.0	34.0	40.0	11.0	43.0
10/16/2018	0.0	0.0	0.0	0.0	0.0	6.0	0.0	38.0	0.0	0.0	10.0	14.0	50.0	0.0	65.0	34.0	24.0	40.0
1/25/2019	26.0	0.0	7.0	8.0	44.0	0.0	44.0	50.0	0.0	0.0	5.0	89.0	71.0	0.0	95.0	91.0	22.0	25.0
4/17/2019	6.0	14.0	0.0	3.0	5.0	16.0	0.0	OL	0.0	0.0	0.0	18.0	OL	0.0	59.0	26.0	4.0	77.0
7/23/2019	97.0	24.0	0.0	10.0	18.0	OL	4.0	77.0	0.0	0.0	35.0	42.0	50.0	0.0	85.0	OL	OL	OL
10/15/2019	7.0	10.0	6.0	36.0	3.0	OL	0.0	OL	0.0	0.0	4.0	62.0	22.0	0.0	OL	36.0	33.0	24.0
1/21/2020	25.0	14.0	12.0	6.0	42.0	OL	0.0	45.0	0.0	0.0	39.0	37.0	16.0	0.0	18.0	OL	97.0	54.0
4/6/2020	10.0	3.0	17.0	4.0	50.0	23.0	0.0	OL	0.0	0.0	44.0	50.0	OL	0.0	18.0	11.0	0.0	73.0
7/1/2020	23.0	OL	37.0	5.0	44.0	OL	0.0	OL	0.0	0.0	7.0	38.0	74.0	3.0	37.0	50.0	OL	OL
10/13/2020	0.0	13.0	0.0	0.0	0.0	27.0	0.0	57.0	0.0	0.0	3.0	22.0	OL	6.0	OL	30.0	43.0	35.0
1/12/2021	41.0	28.0	50.0	13.0	0.0	70.0	0.0	OL	0.0	4.0	67.0	4.0	90.0	0.0	OL	35.0	63.0	OL
4/12/2021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	OL	0.0	OL	0.0	0.0	78.4
7/1/2021	OL	80.8	OL	OL	92.8	OL	0.0	83.0	0.0	0.0	OL	OL	OL	0.0	OL	OL	OL	OL
10/6/2021	12.4	OL	95.6	66.9	83.4	OL	0.0	OL	0.0	0.0	93.6	OL	OL	39.9	OL	OL	OL	OL
1/18/2022	73.1	OL	OL	OL	OL	OL	0.0	OL	0.0	0.0	OL	OL	OL	0.0	OL	OL	OL	OL
4/15/2022	17.8	0.0	5.6	0.0	0.0	54.0	0.0	OL	0.0	6.2	7.4	OL	OL	0.0	OL	OL	OL	OL
7/13/2022	80.3	OL	58.6	44.5	OL	OL	0.0	OL	0.0	5.0	53.7	OL	OL	27.7	OL	OL	OL	OL
10/25/2022	56.6	36.2	OL	0.0	OL	0.0	13.8	5.8	0.0	3.4	50.0	OL	OL	35.8	OL	OL	OL	OL
1/9/2023	OL	OL	OL	50.1	OL	OL	0.0	96.9	0.0	5.4	28.8	OL	OL	3.4	OL	OL	OL	OL
4/3/2023	0.0	OL	OL	OL	OL	OL	0.0	34.5	0.0	0.0	0.0	OL	OL	0.0	OL	OL	OL	OL
7/10/2023	37.7	34.5	OL	0.0	8.0	OL	0.0	OL	0.0	0.0	24.3	OL	OL	6.8	OL	OL	OL	OL
10/16/2023	OL	54.9	OL	OL	0.0	OL	81.7	OL	0.0	0.0	81.9	OL	OL	31.1	OL	OL	OL	OL
1/22/2024	OL	2.4	OL	3.4	7.2	OL	0.0	OL	0.0	0.0	OL	OL	OL	44.7	OL	OL	OL	OL
4/22/2024	0.0	3.4	OL	0.0	OL	OL	0.0	OL	0.0	0.0	8.0	OL	OL	0.0	OL	OL	OL	OL
7/24/2024	83.2	OL	OL	OL	OL	0.0	OL	15.9	0.0	0.0	82.6	OL	OL	21.8	OL	OL	OL	OL
10/7/2024	OL	67.0	OL	OL	OL	OL	0.0	OL	0.0	0.0	35.2	OL	OL	30.4	OL	OL	OL	OL
1/17/2025	OL	5.0	OL	37.0	OL	OL	0.0	OL	0.0	0.0	OL	OL	OL	0.0	OL	OL	OL	OL
4/1/2025	45.2	0.0	OL	3.3	0.0	OL	50.0	OL	0.0	0.0	50.0	OL	OL	0.0	OL	OL	OL	OL
7/9/2025	OL	OL	OL	86.5	OL	OL	0.0	OL	0.0	0.0	OL	OL	OL	0.0	OL	OL	OL	OL
10/13/2025	13.6	58.1	OL	18.1	66.4	OL	0.0	OL	0.0	0.0	57.0	OL	OL	0.0	OL	79.3	OL	OL

Table 15B

Gas Monitoring - Control or Recovery System Components (IAC 113.9(2)"a"(1))

Fayette County Sanitary Landfill

Permit No. 33-SDP-02-83C

Key

OL = Over Limit of Instrument > 100% LEL.

DNE = Did Not Exist

Detection

Measurements are in %LEL.

CAMP Vent Trench									
Date	Vent 19	Vent 20	Vent 21	Vent 22	Vent 23	Vent 24	Vent 25	Vent 26	Vent 27
7/9/2015	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
10/20/2015	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
1/11/2016	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
4/11/2016	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
7/13/2016	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
10/12/2016	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
1/24/207	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
4/13/2017	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
7/10/2017	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
10/26/2017	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
1/18/2018	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
4/11/2018	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
7/2/2018	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
10/16/2018	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
1/25/2019	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
4/17/2019	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
7/23/2019	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
10/15/2019	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
1/21/2020	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
4/6/2020	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
7/1/2020	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE
10/13/2020	0.0	0.0	0.0	0.0	0.0	25.0	12.0	4.0	0.0
1/12/2021	0.0	0.0	0.0	3.0	0.0	74.0	45.0	5.0	0.0
4/12/2021	0.0	0.0	0.0	0.0	2.2	OL	OL	46.0	0.0
7/1/2021	0.0	0.0	0.0	0.0	0.0	OL	OL	39.0	0.0
10/6/2021	0.0	0.0	0.0	0.0	0.0	OL	OL	34.5	0.0
1/18/2022	0.0	0.0	0.0	0.0	0.0	OL	OL	39.8	0.0
4/15/2022	0.0	0.0	0.0	0.0	8.6	OL	OL	60.5	0.0
7/13/2022	0.0	0.0	0.0	0.0	0.0	OL	OL	34.2	0.0
10/25/2022	0.0	0.0	31.3	0.0	2.6	OL	OL	44.7	0.0
1/9/2023	0.0	0.0	0.0	0.0	0.0	OL	OL	50.0	0.0
4/3/2023	0.0	0.0	0.0	0.0	7.6	OL	OL	OL	0.0
7/10/2023	0.0	0.0	0.0	0.0	0.0	OL	OL	46.2	0.0
10/16/2023	0.0	0.0	0.0	0.0	0.0	OL	OL	43.0	0.0
1/22/2024	0.0	0.0	0.0	0.0	0.0	OL	OL	36.6	0.0
4/22/2024	0.0	0.0	0.0	0.0	3.2	OL	OL	63.2	0.0
7/24/2024	0.0	0.0	0.0	0.0	0.0	OL	OL	50.0	0.0
10/7/2024	0.0	0.0	0.0	0.0	0.0	OL	OL	0.0	0.0
1/17/2025	0.0	0.0	0.0	0.0	0.0	OL	OL	39.4	0.0
4/1/2025	0.0	0.0	0.0	0.0	0.0	OL	OL	50.0	0.0
7/9/2025	0.0	0.0	0.0	0.0	0.0	OL	OL	50.0	0.0
10/13/2025	0.0	0.0	0.0	0.0	0.0	OL	OL	4.4	0.0

Appendix A

Field Sampling Forms

Fayette County Sanitary Landfill
PERMIT # 33-SDP-02-83P

4/1/2025

Sampled by: Todd Whipple

Weather conditions: Overcast, breezy, 29-42 degrees

IDNR Form 542-1322

Monitoring Well: MW-5 (ug)

Primary Sampling Method:

No-Purge for Appendix I

Secondary Sampling Method:

Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1118.65
Well Depth	20.10
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1118.65
Well Depth	20.10
Top Screen	1108.55
Bottom Screen	1098.55
Bottom Well	1098.55
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.50
Top sample	1104.15
Bottom sample	1100.15
Turbidity(NTU)	8.89

Date	Time	Water Level	Water Elevation	Notes
4/1/2025	10:43	4.23	1114.42	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		8.89
Appendix I	Metals	150	150		8.89
Appendix I	VOC	240	240		8.89
Full Appendix II	10 more containers	5620			
Supplemental	alkalinity	250		500	
Supplemental	Sulfide	250		250	
Supplemental	methane	120		120	
Total			400	870	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1118.65	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	20.10	Before purging	4/1/2025	10:43	4.23	1114.42		0.0	
		After purging				1118.65			
		Top of Screen after construction				1108.55			
						10.10			feet above (+) or below (-) top screen
		Bottom of Well after construction				1098.55			
		Bottom of Well	4/1/2025		20.00	1098.65			
						0.10			feet sedimentation
		Before Sampling				1118.65			
		Recovery				1118.65			
		Recovery				1118.65			
		Recovery				1118.65			
		Recovery				1118.65			

IDNR Form 542-1322

Monitoring Well: MW-7 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1086.36
Well Depth	24.39
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1086.36
Well Depth	24.39
Top Screen	1072.23
Bottom Screen	1062.23
Bottom Well	1061.73
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	18.50
Top sample	1067.86
Bottom sample	1063.86
Turbidity(NTU)	1.85

Date	Time	Water Level	Water Elevation	Notes
4/1/2025	8:53	7.91	1078.45	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.85
Appendix I	Metals	150	150		1.85
Appendix I	VOC	240	240		1.85
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental		250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1086.36	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	24.39	Before purging	4/1/2025	8:53	7.91	1078.45		0.0	
		After purging				1086.36			
		Top of Screen after construction				1072.23			
						14.13			feet above (+) or below (-) top screen
		Bottom of Well after construction				1062.23			
		Bottom of Well	4/1/2025		24.10	1062.26			
						0.03			feet sedimentation
		Before Sampling				1086.36			
		Recovery				1086.36			
		Recovery				1086.36			
		Recovery				1086.36			
		Recovery				1086.36			

IDNR Form 542-1322

Monitoring Well: MW-9 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1069.53
Well Depth	19.78
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1069.53
Well Depth	19.78
Top Screen	1059.75
Bottom Screen	1049.73
Bottom Well	1049.63
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.50
Top sample	1055.03
Bottom sample	1051.03
Turbidity(NTU)	52.66

red

Date	Time	Water Level	Water Elevation	Notes
4/1/2025	7:41	2.37	1067.16	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		52.66
Appendix I	Metals	150	150		52.66
Appendix I	VOC	240	240		52.66
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental	BEHP	250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1069.53	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.78	Before purging	4/1/2025	7:41	2.37	1067.16		0.0	
		After purging				1069.53			
		Top of Screen after construction				1059.75			
						9.78			feet above (+) or below (-) top screen
		Bottom of Well after construction				1049.73			
		Bottom of Well	4/1/2025		19.80	1049.73			
						0.00			feet sedimentation
		Before Sampling				1069.53			
		Recovery				1069.53			
		Recovery				1069.53			
		Recovery				1069.53			
		Recovery				1069.53			

IDNR Form 542-1322

Monitoring Well: MW-12 (ug)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1099.11
Well Depth	24.88
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1099.11
Well Depth	24.88
Top Screen	1084.23
Bottom Screen	1074.23
Bottom Well	1073.62
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	19.00
Top sample	1080.11
Bottom sample	1076.11
Turbidity(NTU)	1.64

Date	Time	Water Level	Water Elevation	Notes
4/1/2025	10:25	7.90	1091.21	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.64
Appendix I	Metals	150	150		1.64
Appendix I	VOC	240	240		1.64
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental		250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1099.11	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	24.88	Before purging	4/1/2025	10:25	7.90	1091.21		0.0	
		After purging				1099.11			
		Top of Screen after construction				1084.23			
						14.88			feet above (+) or below (-) top screen
		Bottom of Well after construction				1074.23			
		Bottom of Well	4/1/2025		24.85	1074.26			
						0.03			feet sedimentation
		Before Sampling				1099.11			
		Recovery				1099.11			
		Recovery				1099.11			
		Recovery				1099.11			
		Recovery				1099.11			

IDNR Form 542-1322

Monitoring Well: MW-16 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1094.27
Well Depth	29.15
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1094.27
Well Depth	29.15
Top Screen	1075.12
Bottom Screen	1065.12
Bottom Well	1064.62
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	25.00
Top sample	1069.27
Bottom sample	1065.27
Turbidity(NTU)	1.51

Date	Time	Water Level	Water Elevation	Notes
4/1/2025	9:20	10.28	1083.99	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.51
Appendix I	Metals	150	150		1.51
Appendix I	VOC	240	240		1.51
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental	Sulfide	250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1094.27	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	29.15	Before purging	4/1/2025	9:20	10.28	1083.99		0.0	
		After purging				1094.27			
		Top of Screen after construction				1075.12			
						19.15			feet above (+) or below (-) top screen
		Bottom of Well after construction				1065.12			
		Bottom of Well	4/1/2025		30.83	1063.44			
						-1.68			feet sedimentation
		Before Sampling				1094.27			
		Recovery				1094.27			
		Recovery				1094.27			
		Recovery				1094.27			
		Recovery				1094.27			

IDNR Form 542-1322

Monitoring Well: MW-17 (ug)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1086.07
Well Depth	30.85
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1086.07
Well Depth	30.85
Top Screen	1065.22
Bottom Screen	1055.22
Bottom Well	1054.72
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	25.00
Top sample	1061.07
Bottom sample	1057.07
Turbidity(NTU)	2.15

Date	Time	Water Level	Water Elevation	Notes
4/1/2025	11:20	7.01	1079.06	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		2.15
Appendix I	Metals	150	150		2.15
Appendix I	VOC	240	240		2.15
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental		250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1086.07	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	30.85	Before purging	4/1/2025	11:20	7.01	1079.06		0.0	
		After purging				1086.07			
		Top of Screen after construction				1065.22			
						20.85	feet above (+) or below (-) top screen		
		Bottom of Well after construction				1055.22			
		Bottom of Well	4/1/2025		31.00	1055.07			
						-0.15	feet sedimentation		
		Before Sampling				1086.07			
		Recovery				1086.07			
		Recovery				1086.07			
		Recovery				1086.07			
		Recovery				1086.07			

IDNR Form 542-1322

Monitoring Well: MW-21 (ug)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1107.23
Well Depth	17.50
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1107.23
Well Depth	17.50
Top Screen	1099.73
Bottom Screen	1089.73
Bottom Well	1089.23
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	12.00
Top sample	1095.23
Bottom sample	1091.23
Turbidity(NTU)	2.45

Date	Time	Water Level	Water Elevation
4/1/2025	11:07	9.42	1097.81

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10			2.45
Appendix I	Metals	150			2.45
Appendix I	VOC	240			2.45
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental		250			
Supplemental		120			
Total			0	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1107.23	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	17.50	Before purging	4/1/2025	11:07	9.42	1097.81		0.0	
		After purging				1107.23			
		Top of Screen after construction				1099.73			
						7.50			feet above (+) or below (-) top screen
		Bottom of Well after construction				1089.73			
		Bottom of Well	4/1/2025		17.55	1089.68			
						-0.05			feet sedimentation
		Before Sampling				1107.23			
		Recovery				1107.23			
		Recovery				1107.23			
		Recovery				1107.23			
		Recovery				1107.23			

IDNR Form 542-1322

Monitoring Well: MW-24 (dg)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1082.08
Well Depth	21.41
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1082.08
Well Depth	21.41
Top Screen	1070.67
Bottom Screen	1060.67
Bottom Well	1059.67
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	15.00
Top sample	1067.08
Bottom sample	1063.08
Turbidity(NTU)	3.63

Date	Time	Water Level	Water Elevation
4/1/2025	8:41	14.74	1067.34

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10			3.63
Appendix I	Metals	150			3.63
Appendix I	VOC	240			3.63
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental		250			
Supplemental	Sulfide	120			
Total			0	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1082.08	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	21.41	Before purging	4/1/2025	8:41	14.74	1067.34		0.0	
		After purging				1082.08			
		Top of Screen after construction				1070.67			
						11.41			feet above (+) or below (-) top screen
		Bottom of Well after construction				1060.67			
		Bottom of Well	4/1/2025		21.65	1060.43			
						-0.24			feet sedimentation
		Before Sampling				1082.08			
		Recovery				1082.08			
		Recovery				1082.08			
		Recovery				1082.08			
		Recovery				1082.08			

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Monitoring Well: MW-25 (dg)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1089
Well Depth	19.60
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1089
Well Depth	19.60
Top Screen	1079.40
Bottom Screen	1069.40
Bottom Well	1068.40
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.50
Top sample	1074.50
Bottom sample	1070.50
Turbidity(NTU)	1.83

Date	Time	Water Level	Water Elevation
4/1/2025	9:07	5.27	1083.73

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.83
Appendix I	Metals	150	150		1.83
Appendix I	VOC	240	240		1.83
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental	BEHP	250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1089	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.60	Before purging	4/1/2025	9:07	5.27	1083.73		0.0	
		After purging				1089.00			
		Top of Screen after construction				1079.40			
						9.60			feet above (+) or below (-) top screen
		Bottom of Well after construction				1069.40			
		Bottom of Well	4/1/2025		20.00	1069.00			
						-0.40			feet sedimentation
		Before Sampling				1089.00			App I
		Recovery	4/22/2024			1089.00			App II
		Recovery	4/22/2024			1089.00			
		Recovery				1089.00			
		Recovery				1089.00			

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Monitoring Well: MW-26 (dg)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1086.93
Well Depth	19.64
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1086.93
Well Depth	19.64
Top Screen	1077.29
Bottom Screen	1067.29
Bottom Well	1066.29
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.50
Top sample	1072.43
Bottom sample	1068.43
Turbidity(NTU)	10.79

Date	Time	Water Level	Water Elevation
4/1/2025	9:33	10.27	1076.66

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		10.79
Appendix I	Metals	150	150		10.79
Appendix I	VOC	240	240		10.79
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental	BEHP	250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1086.93	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.64	Before purging	4/1/2025	9:33	10.27	1076.66		0.0	
		After purging				1086.93			
		Top of Screen after construction				1077.29			
						9.64			feet above (+) or below (-) top screen
		Bottom of Well after construction				1067.29			
		Bottom of Well	4/1/2025		19.95	1066.98			
						-0.31			feet sedimentation
		Before Sampling				1086.93			
		Recovery				1086.93			
		Recovery				1086.93			
		Recovery				1086.93			
		Recovery				1086.93			

IDNR Form 542-1322

Monitoring Well: MW-32 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1078.35
Well Depth	16.80
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1078.35
Well Depth	16.80
Top Screen	1066.55
Bottom Screen	1061.55
Bottom Well	1060.40
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	11.20
Top sample	1067.15
Bottom sample	1063.15
Turbidity(NTU)	37.30

red

Date	Time	Water Level	Water Elevation
4/1/2025	8:15	5.2	1073.15

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		37.3
Appendix I	Metals	150	150		37.3
Appendix I	VOC	240	240		37.3
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental		250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1078.35	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	16.80	Before purging	4/1/2025	8:15	5.20	1073.15		0.0	
		After purging				1078.35			
		Top of Screen after construction				1066.55			
						11.80	feet above (+) or below (-) top screen		
		Bottom of Well after construction				1061.55			
		Bottom of Well	4/1/2025		16.80	1061.55			
						0.00	feet sedimentation		
		Before Sampling				1078.35			
		Recovery				1078.35			
		Recovery				1078.35			
		Recovery				1078.35			
		Recovery				1078.35			

IDNR Form 542-1322

Monitoring Well: MW-33 (dg)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1082.11
Well Depth	16.50
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1082.11
Well Depth	16.50
Top Screen	1070.61
Bottom Screen	1065.61
Bottom Well	1064.70
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	11.00
Top sample	1071.11
Bottom sample	1067.11
Turbidity(NTU)	8.08

green

Date	Time	Water Level	Water Elevation
4/1/2025	8:03	3.44	1078.67

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		8.08
Appendix I	Metals	150	150		8.08
Appendix I	VOC	240	240		8.08
Bis	Bis	5620		940	
TSS	TSS	250			
Supplemental		250			
Supplemental		120			
Total			400	940	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1082.11	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	16.50	Before purging	4/1/2025	8:03	3.44	1078.67		0.0	
		After purging				1082.11			
		Top of Screen after construction				1070.61			
						11.50			feet above (+) or below (-) top screen
		Bottom of Well after construction				1065.61			
		Bottom of Well	4/1/2025		16.50	1065.61			
						0.00			feet sedimentation
		Before Sampling				1082.11			
		Recovery				1082.11			
		Recovery				1082.11			
		Recovery				1082.11			
		Recovery				1082.11			

Fayette County Sanitary Landfill
PERMIT # 33-SDP-02-83P

10/13/2025

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 65 degrees

IDNR Form 542-1322

Monitoring Well: MW-5 (ug)

Primary Sampling Method:

No-Purge for Appendix I

Secondary Sampling Method:

Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1118.65
Well Depth	20.10
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1118.65
Well Depth	20.10
Top Screen	1108.55
Bottom Screen	1098.55
Bottom Well	1098.55
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.50
Top sample	1104.15
Bottom sample	1100.15
Turbidity(NTU)	4.24

Date	Time	Water Level	Water Elevation	Notes
10/13/2025	13:00	11.57	1107.08	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		4.24
Appendix I	Metals	150	150		4.24
Appendix I	VOC	240	240		4.24
Full Appendix II	10 more containers	5620		5620	
Supplemental	alkalinity	250		500	
Supplemental	Sulfide	250		250	
Supplemental	methane	120		120	
Total			400	6490	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1118.65	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	20.10	Before purging	10/13/2025	13:00	11.57	1107.08		0.0	
		After purging				1118.65			
		Top of Screen after construction				1108.55			
						10.10			feet above (+) or below (-) top screen
		Bottom of Well after construction				1098.55			
		Bottom of Well	10/13/2025		20.00	1098.65			
						0.10			feet sedimentation
		Before Sampling				1118.65			
		Recovery				1118.65			
		Recovery				1118.65			
		Recovery				1118.65			
		Recovery				1118.65			

IDNR Form 542-1322

Monitoring Well: MW-7 (dg)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1086.36
Well Depth	24.39
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1086.36
Well Depth	24.39
Top Screen	1072.23
Bottom Screen	1062.23
Bottom Well	1061.73
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	19.00
Top sample	1067.36
Bottom sample	1063.36
Turbidity(NTU)	1.78

Date	Time	Water Level	Water Elevation	Notes
10/13/2025	13:55	15	1071.36	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.78
Appendix I	Metals	150	150		1.78
Appendix I	VOC	240	240		1.78
Full Appendix II	10 more containers	5620		5620	
TSS	TSS	250			
Supplemental		250			
Supplemental		120			
Total			400	5620	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1086.36	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	24.39	Before purging	10/13/2025	13:55	15.00	1071.36		0.0	
		After purging				1086.36			
		Top of Screen after construction				1072.23			
						14.13			feet above (+) or below (-) top screen
		Bottom of Well after construction				1062.23			
		Bottom of Well	10/13/2025		24.10	1062.26			
						0.03			feet sedimentation
		Before Sampling				1086.36			
		Recovery				1086.36			
		Recovery				1086.36			
		Recovery				1086.36			
		Recovery				1086.36			

IDNR Form 542-1322

Monitoring Well: MW-9 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1069.53
Well Depth	19.78
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1069.53
Well Depth	19.78
Top Screen	1059.75
Bottom Screen	1049.73
Bottom Well	1049.63
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.00
Top sample	1055.53
Bottom sample	1051.53
Turbidity(NTU)	21.89

red

Date	Time	Water Level	Water Elevation	Notes
10/13/2025	17:58	7.8	1061.73	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		21.89
Appendix I	Metals	150	150		21.89
Appendix I	VOC	240	240		21.89
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental	BEHP	250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1069.53	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.78	Before purging	10/13/2025	17:58	7.8	1061.73		0.0	
		After purging				1069.53			
		Top of Screen after construction				1059.75			
						9.78			feet above (+) or below (-) top screen
		Bottom of Well after construction				1049.73			
		Bottom of Well	10/13/2025		19.80	1049.73			
						0.00			feet sedimentation
		Before Sampling				1069.53			
		Recovery				1069.53			
		Recovery				1069.53			
		Recovery				1069.53			
		Recovery				1069.53			

IDNR Form 542-1322

Monitoring Well: MW-12 (ug)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1099.11
Well Depth	24.88
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1099.11
Well Depth	24.88
Top Screen	1084.23
Bottom Screen	1074.23
Bottom Well	1073.62
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	19.00
Top sample	1080.11
Bottom sample	1076.11
Turbidity(NTU)	2.88

Date	Time	Water Level	Water Elevation	Notes
10/13/2025	15:28	14.19	1084.92	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		2.88
Appendix I	Metals	150	150		2.88
Appendix I	VOC	240	240		2.88
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental		250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1099.11	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	24.88	Before purging	10/13/2025	15:28	14.19	1084.92		0.0	
		After purging				1099.11			
		Top of Screen after construction				1084.23			
						14.88			feet above (+) or below (-) top screen
		Bottom of Well after construction				1074.23			
		Bottom of Well	10/13/2025		24.85	1074.26			
						0.03			feet sedimentation
		Before Sampling				1099.11			
		Recovery				1099.11			
		Recovery				1099.11			
		Recovery				1099.11			
		Recovery				1099.11			

IDNR Form 542-1322

Monitoring Well: MW-16 (dg)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1094.27
Well Depth	29.15
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1094.27
Well Depth	29.15
Top Screen	1075.12
Bottom Screen	1065.12
Bottom Well	1064.62
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	25.00
Top sample	1069.27
Bottom sample	1065.27
Turbidity(NTU)	2.67

Date	Time	Water Level	Water Elevation	Notes
10/13/2025	14:33	11.48	1082.79	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		2.67
Appendix I	Metals	150	150		2.67
Appendix I	VOC	240	240		2.67
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental	Sulfide	250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1094.27	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	29.15	Before purging	10/13/2025	14:33	11.48	1082.79		0.0	
		After purging				1094.27			
		Top of Screen after construction				1075.12			
						19.15			feet above (+) or below (-) top screen
		Bottom of Well after construction				1065.12			
		Bottom of Well	10/13/2025		30.83	1063.44			
						-1.68			feet sedimentation
		Before Sampling				1094.27			
		Recovery				1094.27			
		Recovery				1094.27			
		Recovery				1094.27			
		Recovery				1094.27			

IDNR Form 542-1322

Monitoring Well: MW-17 (ug)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1086.07
Well Depth	30.85
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1086.07
Well Depth	30.85
Top Screen	1065.22
Bottom Screen	1055.22
Bottom Well	1054.72
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	25.00
Top sample	1061.07
Bottom sample	1057.07
Turbidity(NTU)	4.00

Date	Time	Water Level	Water Elevation	Notes
10/13/2025	15:54	7.47	1078.6	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		4.00
Appendix I	Metals	150	150		4.00
Appendix I	VOC	240	240		4.00
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental		250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1086.07	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	30.85	Before purging	10/13/2025	15:54	7.47	1078.60		0.0	
		After purging				1086.07			
		Top of Screen after construction				1065.22			
						20.85			feet above (+) or below (-) top screen
		Bottom of Well after construction				1055.22			
		Bottom of Well	10/13/2025		31.00	1055.07			
						-0.15			feet sedimentation
		Before Sampling				1086.07			
		Recovery				1086.07			
		Recovery				1086.07			
		Recovery				1086.07			
		Recovery				1086.07			

IDNR Form 542-1322

Monitoring Well: MW-21 (ug)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1107.23
Well Depth	17.50
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1107.23
Well Depth	17.50
Top Screen	1099.73
Bottom Screen	1089.73
Bottom Well	1089.23
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	13.50
Top sample	1093.73
Bottom sample	1089.73
Turbidity(NTU)	2.87

Date	Time	Water Level	Water Elevation
10/13/2025	15:45	13.40	1093.83

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10			2.87
Appendix I	Metals	150			2.87
Appendix I	VOC	240			2.87
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental		250			
Supplemental		120			
Total			0	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1107.23	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	17.50	Before purging	10/13/2025	15:45	13.40	1093.83		0.0	
		After purging				1107.23			
		Top of Screen after construction				1099.73			
						7.50			feet above (+) or below (-) top screen
		Bottom of Well after construction				1089.73			
		Bottom of Well	10/13/2025		17.55	1089.68			
						-0.05			feet sedimentation
		Before Sampling				1107.23			
		Recovery				1107.23			
		Recovery				1107.23			
		Recovery				1107.23			
		Recovery				1107.23			

IDNR Form 542-1322

Monitoring Well: MW-24 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1082.08
Well Depth	21.41
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1082.08
Well Depth	21.41
Top Screen	1070.67
Bottom Screen	1060.67
Bottom Well	1059.67
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	18.00
Top sample	1064.08
Bottom sample	1060.08
Turbidity(NTU)	2.33

Date	Time	Water Level	Water Elevation
10/13/2025	17:30	18.21	1063.87

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10			2.33
Appendix I	Metals	150			2.33
Appendix I	VOC	240			2.33
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental		250			
Supplemental	Sulfide	120			
Total			0	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1082.08	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	21.41	Before purging	10/13/2025	17:30	18.21	1063.87		0.0	
		After purging				1082.08			
		Top of Screen after construction				1070.67			
						11.41			feet above (+) or below (-) top screen
		Bottom of Well after construction				1060.67			
		Bottom of Well	10/13/2025		21.65	1060.43			
						-0.24			feet sedimentation
		Before Sampling				1082.08			
		Recovery				1082.08			
		Recovery				1082.08			
		Recovery				1082.08			
		Recovery				1082.08			

IDNR Form 542-1322

Monitoring Well: MW-25 (dg)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1089
Well Depth	19.60
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1089
Well Depth	19.60
Top Screen	1079.40
Bottom Screen	1069.40
Bottom Well	1068.40
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.00
Top sample	1075.00
Bottom sample	1071.00
Turbidity(NTU)	1.05

Date	Time	Water Level	Water Elevation
10/13/2025	17:43	8.82	1080.18

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.05
Appendix I	Metals	150	150		1.05
Appendix I	VOC	240	240		1.05
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental	BEHP	250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1089	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.60	Before purging	10/13/2025	17:43	8.82	1080.18		0.0	
		After purging				1089.00			
		Top of Screen after construction				1079.40			
						9.60			feet above (+) or below (-) top screen
		Bottom of Well after construction				1069.40			
		Bottom of Well	10/13/2025		20.00	1069.00			
						-0.40			feet sedimentation
		Before Sampling				1089.00			App I
		Recovery				1089.00			App II
		Recovery				1089.00			
		Recovery				1089.00			
		Recovery				1089.00			

IDNR Form 542-1322

Monitoring Well: MW-26 (dg)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1086.93
Well Depth	19.64
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1086.93
Well Depth	19.64
Top Screen	1077.29
Bottom Screen	1067.29
Bottom Well	1066.29
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	13.50
Top sample	1073.43
Bottom sample	1069.43
Turbidity(NTU)	5.03

Date	Time	Water Level	Water Elevation
10/13/2025	14:50	12.7	1074.23

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		5.03
Appendix I	Metals	150	150		5.03
Appendix I	VOC	240	240		5.03
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental	BEHP	250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1086.93	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.64	Before purging	10/13/2025	14:50	12.7	1074.23		0.0	
		After purging				1086.93			
		Top of Screen after construction				1077.29			
						9.64			feet above (+) or below (-) top screen
		Bottom of Well after construction				1067.29			
		Bottom of Well	10/13/2025		19.95	1066.98			
						-0.31			feet sedimentation
		Before Sampling				1086.93			
		Recovery				1086.93			
		Recovery				1086.93			
		Recovery				1086.93			
		Recovery				1086.93			

IDNR Form 542-1322

Monitoring Well: MW-32 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1078.35
Well Depth	16.80
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1078.35
Well Depth	16.80
Top Screen	1066.55
Bottom Screen	1061.55
Bottom Well	1060.40
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	11.00
Top sample	1067.35
Bottom sample	1063.35
Turbidity(NTU)	48.28

red

Date	Time	Water Level	Water Elevation
10/13/2025	17:05	9.62	1068.73

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		48.28
Appendix I	Metals	150	150		48.28
Appendix I	VOC	240	240		48.28
Full Appendix II	10 more containers	5620			
TSS	TSS	250			
Supplemental		250			
Supplemental		120			
Total			400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1078.35	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	16.80	Before purging	10/13/2025	17:05	9.62	1068.73		0.0	
		After purging				1078.35			
		Top of Screen after construction				1066.55			
						11.80			feet above (+) or below (-) top screen
		Bottom of Well after construction				1061.55			
		Bottom of Well	10/13/2025		16.80	1061.55			
						0.00			feet sedimentation
		Before Sampling				1078.35			
		Recovery				1078.35			
		Recovery				1078.35			
		Recovery				1078.35			
		Recovery				1078.35			

IDNR Form 542-1322

Monitoring Well: MW-33 (dg)

Primary Sampling Method:
Secondary Sampling Method:

No-Purge for Appendix I
Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	1082.11
Well Depth	16.50
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	1082.11
Well Depth	16.50
Top Screen	1070.61
Bottom Screen	1065.61
Bottom Well	1064.70
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	11.80
Top sample	1070.31
Bottom sample	1066.31
Turbidity(NTU)	1.48

Date	Time	Water Level	Water Elevation
10/13/2025	16:50	11.8	1070.31

ANALYTES, CONTAINERS, AND VOLUMES

Analyte		Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10		1.48
Appendix I	Metals	150	150		1.48
Appendix I	VOC	240	240		1.48
Bis	Bis	5620		940	
TSS	TSS	250			
Supplemental		250			
Supplemental		120			
Total			400	940	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	1082.11	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	16.50	Before purging	10/13/2025	16:50	11.80	1070.31		0.0	
		After purging				1082.11			
		Top of Screen after construction				1070.61			
						11.50			feet above (+) or below (-) top screen
		Bottom of Well after construction				1065.61			
		Bottom of Well	10/13/2025		16.50	1065.61			
						0.00			feet sedimentation
		Before Sampling				1082.11			
		Recovery				1082.11			
		Recovery				1082.11			
		Recovery				1082.11			
		Recovery				1082.11			

Appendix B

Statistical Reports

Appendix B.1 – Spring Statistical Evaluation Report

GROUND WATER STATISTICS

FOR THE

FAYETTE COUNTY SANITARY LANDFILL

First Semi-Annual Monitoring Event in 2025

Prepared for:
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June 2025

INTRODUCTION

This report summarizes the results of the statistical analysis used to evaluate the ground water quality data obtained during the first semi-annual monitoring event in 2025 at the Fayette County Sanitary Landfill in Fayette County, Iowa. The statistical plan was designed to detect a release from the facility at the earliest indication so that it is protective of human health and the environment. The interwell methodology is described and then applied to the Fayette County Landfill data. The statistical plan conforms with IAC 567, Chapter 113.10, USEPA Guidance document (“*Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Unified Guidance*”, March 2009), and the American Society for Testing and Materials (ASTM) standard D6312-98, *Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs*.

Ground Water Monitoring Program

The groundwater monitoring network for Fayette County Landfill includes wells MW-12, MW-16, MW-17, MW-21, MW-24, MW-25, MW-26, MW-32, MW-33, MW-5, MW-7, and MW-9. Wells MW-32 and MW-33 replace MW-27 and MW-28 in the monitoring program. Each of the groundwater monitoring wells is to be sampled at least semiannually and analyzed for the detection monitoring parameters listed in 113.10(5), which includes 15 inorganic constituents and 47 organic compounds, summarized in Table 1 below.

Table 1: Detection monitoring constituents listed in Appendix I of IAC 567, Chapter 113.

Organic Compounds:

Acetone	<i>trans</i> -1,4-Dichloro-2-butene	Iodomethane
Acrylonitrile	1,1-Dichloroethane	4-Methyl-2-pentanone
Benzene	1,2-Dichloroethane	Styrene
Bromochloromethane	1,1-Dichloroethene	1,1,1,2-Tetrachloroethane
Bromodichloromethane	<i>cis</i> -1,2-Dichloroethene	1,1,2,2-Tetrachloroethane
Bromoform	<i>trans</i> -1,2-Dichloroethene	Tetrachloroethene
Carbon disulfide	1,2-Dichloropropane	Toluene
Carbon tetrachloride	<i>cis</i> -1,3-Dichloropropene	1,1,1-Trichloroethane
Chlorobenzene	<i>trans</i> -1,3-Dichloropropene	1,1,2-Trichloroethane
Chloroethane	Ethylbenzene	Trichloroethene
Chloroform	2-Hexanone	Trichlorofluoromethane
Dibromochloromethane	Bromomethane	1,2,3-Trichloropropane
1,2-Dibromo-3-chloropropane	Chloromethane	Vinyl acetate
1,2-Dibromoethane	Dibromomethane	Vinyl chloride
1,2-Dichlorobenzene	Methylene chloride	Xylenes (Total)
1,4-Dichlorobenzene	2-Butanone	

Inorganic constituents:

Antimony, Total	Chromium, Total	Selenium, Total
Arsenic, Total	Cobalt, Total	Silver, Total
Barium, Total	Copper, Total	Thallium, Total
Beryllium, Total	Lead, Total	Vanadium, Total
Cadmium, Total	Nickel, Total	Zinc, Total

The ground water data obtained during the first semi-annual monitoring event in 2025 are summarized in Attachment A.

STATISTICAL METHODOLOGIES FOR DETECTION MONITORING

IAC 567, Chapter 113.10(4) provides several options for statistically evaluating the ground water data at those wells that monitor the open cells or contiguous MSWLF units. The preferred methods for comparing ground water data are using either prediction limits or using control charts. The prediction limit method was applied to the Fayette County Landfill data using the DUMPStat[®] statistical program. Ground water statistics are to be done on the inorganic constituents listed. The organic constituents are compared to maximum contaminant levels (MCLs) or practical quantitation limits (PQLs), in lieu of statistical comparisons to historical concentrations.

Interwell Statistics: Upgradient versus Downgradient Comparisons

Interwell statistics are appropriate when the upgradient and downgradient wells monitor the same ground water formation and there is similar variability in the upgradient and downgradient zones. Site prediction limits are determined by pooling the historical ground water data from hydraulically upgradient wells. This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances. The type of prediction limit utilized (e.g., parametric or nonparametric) is based on the detection frequency and the data distribution of each parameter in the background data. The distribution of the background data is tested for normality using the Shapiro-Wilk test (Gibbons, 1994 and USEPA 1992). If the constituent is normally distributed, a normal prediction limit is used. If normality is rejected by the Shapiro-Wilk test, the background data is transformed by taking the natural logarithm. The Shapiro-Wilk test is then reapplied on the transformed data. If it is not rejected, lognormal prediction limits are used. If after transforming the data, normality is still rejected, nonparametric prediction limits are used for that analyte. The nonparametric prediction limit is the largest determination in the background measurements. For constituents where the background detection frequency is greater than 0% but less than 50%, nonparametric prediction limits will be used. If the detection frequency is 0% after thirteen samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit.

Results of the Interwell Statistics – Shallow Zone

The previous background data used in the statistical analysis included the ground water data collected from ground water wells MW-12, MW-17, and MW-21 during the period from October 2007 through the current data. The October 2007, January 2008, and April 2008 data from wells MW-12 and MW-17 was excluded due to high levels of several metals. The October 2007 data from well MW-21 was excluded due to high levels of several metals. The background data used in this statistical analysis includes the ground water data collected from ground water wells MW-12, MW-17, and MW-21 during the period from October 2014 through the current data. A summary of the background data from monitoring wells MW-12, MW-17, and MW-21, used to determine the site prediction limits, is listed in Attachment B, Table 1 “Upgradient Data”. This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances.

Table 2 “Most Current Downgradient Monitoring Data”, summarizes the current data from downgradient wells MW-9, MW-16, MW-24, MW-25, MW-26, MW-32, and MW-33, compared to the site prediction limits. Prediction limit exceedances are flagged with asterisks. For the most current data, the site prediction limit exceedances detected are summarized in the Table below.

Summary of Prediction Limit Exceedances for the First Semi-Annual Monitoring Event in 2025

Well	Trace Metal	Result	Prediction Limit	Prediction Limit Type	Verified or Awaiting Verification
MW-24	Arsenic, µg/L	4.8	4.0000	Nonparametric	Verified
	Barium, µg/L	522	271.0573	Lognormal	Verified
	Cobalt, µg/L	1.7	0.7000	Nonparametric	Verified
	Nickel, µg/L	35.6	11.6000	Nonparametric	Verified
MW-26	Cobalt, µg/L	3.4	0.7000	Nonparametric	Verified
MW-32	Barium, µg/L	444	271.0573	Lognormal	Verified
	Cobalt, µg/L	0.9	0.7000	Nonparametric	Awaiting Verification
MW-33	Cobalt, µg/L	18.7	0.7000	Nonparametric	Verified
	Nickel, µg/L	15.0	11.6000	Nonparametric	Verified
MW-9	Arsenic, µg/L	5.9	4.0000	Nonparametric	Verified
	Barium, µg/L	559	271.0573	Lognormal	Verified
	Cobalt, µg/L	1.8	0.7000	Nonparametric	Verified

The detection frequencies of the parameters in the up and down gradient monitoring wells are summarized in Table 3. With the exception of barium, these constituents are rarely detected in the upgradient wells. With the detection frequencies being less than 50% for all but barium, nonparametric site prediction limits are used for those trace metals.

Table 4 summarizes the results of the Shapiro-Wilk test. Table 5 is a summary of the statistics and prediction limits determined for the metals. Time series graphs of each of the parameters at each well with the corresponding prediction limits are attached.

A statistical power curve indicates the expected false assessments for the site as a whole. The false positive rate for interwell analyses is the percentage of failures when the upgradient versus downgradient true mean difference equals zero. False negative rate indicates the chance of missing contamination at a single well for a single constituent. The statistical power is a function of the number of wells included, the number of constituents compared, the detection frequencies, and the data distributions involved. For interwell analysis, the site-wide false positive rate is 1% and the test becomes sensitive to 4 standard deviation unit increases over background.

The verified exceedances were evaluated against the ground water protection standards (GWPS) using confidence limits (Attachment C). The 95% lower confidence limit (LCL) for the mean of the historical data was used to evaluate whether the regulated unit is in compliance with the ground-water protection standards under 40 CFR 264 (e.g. whether the verified constituent is detected at a significant level above the GWPS). An exceedance is verified if the LCL is above the Regulatory GWPS.

The calculated 95% LCLs are below the respective GWPS.

Volatile Organic Compounds

Volatile Organic Compounds (VOCs) are generally man-made compounds not present in ambient ground water. If VOCs are detected above their statistical limit (i.e., the laboratory PQL or reporting limit), a verification resample will be conducted at the next scheduled sampling event. A statistical exceedance will be indicated if the VOC detection is confirmed by the subsequent monitoring. VOCs detected in the ground water at Fayette County Landfill during the first semi-annual monitoring event in 2025 are summarized below.

Organic compounds detected during the first semi-annual monitoring event in 2025

Well	VOC Detected	Result, µg/L	Reporting Limit, µg/L	Verified/ Awaiting Verification	Groundwater Standard, µg/L
MW-24	1,1-Dichloroethane	1.5	1	Awaiting Verification	140 ^b
	Benzene	1.1	1	Awaiting Verification	5 ^a
	Vinyl chloride	1.7	1	Awaiting Verification	2 ^a
MW-5	1,1-Dichloroethane	9.8	1	Verified	140 ^b
	1,4-Dichlorobenzene	1.2	1	Awaiting Verification	75 ^a
	2-Butanone	12.6	10	Awaiting Verification	4000 ^b
	Acetone	217	10	Awaiting Verification	6300 ^b
	Benzene	7.2	1	Verified	5 ^a
	Chlorobenzene	2.0	1	Verified	100 ^a
	Chloroethane	8.5	1	Verified	2800 ^b
	cis-1,2-Dichloroethene	2.1	1	Verified	70 ^a
	Ethylbenzene	6.7	1	Awaiting Verification	700 ^a
	Vinyl chloride	1.3	1	Awaiting Verification	2 ^a
	Xylenes	2.2	2	Awaiting Verification	10000 ^a

a - USEPA MCL

b – Iowa Statewide Standard

Historical VOC detections are summarized in Attachment D. The VOCs reported at MW-24 were last detected at MW-24 in October 2022. 1,4-Dichlorobenzene, 2-butanone, acetone, and xylenes were last detected at MW-5 in April 2022. Ethylbenzene was last detected at MW-5 in October 2022; vinyl chloride was last detected at MW-5 in April 2023.

Monitoring well MW-5 is currently in assessment monitoring because of the previous occurrences of VOCs. The verified VOC detections were evaluated against the GWPS using confidence limits (Attachment E). The 95% LCLs for the verified VOC detections are below the respective ground water standards.

Assessment Wells

In addition to VOCs, monitoring wells MW-5 and MW-7 are in assessment from prior trace metals detected. The verified trace metal exceedances were evaluated against the ground water protection standards (GWPS)

using confidence limits (Attachment F). The 95% lower confidence limit (LCL) for the mean of the historical data was used to evaluate whether the regulated unit is in compliance with the ground-water protection standards under 40 CFR 264 (e.g. whether the verified constituent is detected at a significant level above the GWPS). An exceedance is verified if the LCL is above the Regulatory GWPS. The 95% LCL for arsenic at MW-5 (10.235 µg/L) exceeds the GWPS of 10 µg/L. The 95% LCLs for the remainder of verified trace metal detections are below the respective ground water standards.

Attachment A

Summary of the Data obtained during the First Semi-Annual Monitoring Event in 2025

Table 1

Analytical Data Summary for 4/1/2025

Constituents	Units	ACM TILE 1	MW-12	MW-16	MW-17	MW-21	MW-24	MW-25	MW-26	MW-32	MW-33	MW-5	MW-7	MW-9	PECS-1
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	9.8	<1.0	<1.0	<1.0
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0
2-butanone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	12.6	<10.0	<10.0	<10.0
2-hexanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	217	<10	<10	<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Arsenic, total	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	4.8	<2.0	<2.0	<2.0	<2.0	11.3	<2.0	5.9	<2.0
Barium, total	ug/L	116.0	137.0	110.0	44.5	522.0	18.7	34.0	444.0	129.0	860.0	38.4	559.0		
Benzene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	7.2	<1.0	<1.0	<1.0
Beryllium, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	.3	<2	<2	<2	<2
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	<1
Chloroethane	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.5	<1.0	<1.0	<1.0
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	1.1	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0
Cis-1,2-dichloroethylene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<5	<5	<5	<5	<5	1.7	<5	3.4	.9	18.7	.7	<5	1.8	<5
Copper, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.7	<1.0	<1.0	<1.0
Iodomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	35.6	<5.0	5.3	<5.0	15.0	<5.0	<5.0	<5.0	<5.0
Selenium, total	ug/L	<2.0	<2.0	<2.0	<2.0	2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Silver, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	mg/L											.54			
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for 4/1/2025

Constituents	Units	ACM TILE 1	MW-12	MW-16	MW-17	MW-21	MW-24	MW-25	MW-26	MW-32	MW-33	MW-5	MW-7	MW-9	PECS-1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L		<2	<2	<2	<2	<2	<2	<2	<2	<2	4	<2	<2	
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0
Xylenes, total	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.2	<2.0	<2.0	<2.0
Zinc, total	ug/L		5.4	6.3	<5.0	6.1	8.6	9.2	7.4	<5.0	<5.0	6.4	11.3	<5.0	

* - The displayed value is the arithmetic mean of multiple database matches.

Attachment B

Summary Tables and Graphs for the Interwell Comparisons – Shallow Zone

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, total	ug/L	MW-12	10/24/2014	ND	0.1610		*
Antimony, total	ug/L	MW-12	04/07/2015	ND	0.1610		*
Antimony, total	ug/L	MW-12	10/20/2015	ND	2.0000		
Antimony, total	ug/L	MW-12	04/11/2016	ND	2.0000		
Antimony, total	ug/L	MW-12	10/12/2016		6.2000		*
Antimony, total	ug/L	MW-12	04/13/2017	ND	2.0000		
Antimony, total	ug/L	MW-12	10/25/2017	ND	2.0000		
Antimony, total	ug/L	MW-12	04/11/2018	ND	2.0000		
Antimony, total	ug/L	MW-12	10/16/2018	ND	2.0000		
Antimony, total	ug/L	MW-12	04/17/2019	ND	2.0000		
Antimony, total	ug/L	MW-12	10/15/2019	ND	2.0000		
Antimony, total	ug/L	MW-12	04/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-12	10/13/2020	ND	2.0000		
Antimony, total	ug/L	MW-12	04/12/2021	ND	2.0000		
Antimony, total	ug/L	MW-12	10/06/2021	ND	2.0000		
Antimony, total	ug/L	MW-12	04/14/2022	ND	2.0000		
Antimony, total	ug/L	MW-12	10/25/2022	ND	2.0000		
Antimony, total	ug/L	MW-12	04/03/2023	ND	2.0000		
Antimony, total	ug/L	MW-12	10/16/2023	ND	2.0000		
Antimony, total	ug/L	MW-12	04/22/2024	ND	2.0000		
Antimony, total	ug/L	MW-12	10/07/2024	ND	2.0000		
Antimony, total	ug/L	MW-12	04/01/2025	ND	1.0000	2.0000	**
Arsenic, total	ug/L	MW-12	10/24/2014	ND	0.9450		*
Arsenic, total	ug/L	MW-12	04/07/2015	ND	0.9450		*
Arsenic, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/01/2025	ND	2.0000	4.0000	**
Barium, total	ug/L	MW-12	10/24/2014		161.0000		
Barium, total	ug/L	MW-12	04/07/2015		159.0000		
Barium, total	ug/L	MW-12	10/20/2015		137.0000		
Barium, total	ug/L	MW-12	04/11/2016		174.0000		
Barium, total	ug/L	MW-12	10/12/2016		129.0000		
Barium, total	ug/L	MW-12	04/13/2017		212.0000		
Barium, total	ug/L	MW-12	10/25/2017		152.0000		
Barium, total	ug/L	MW-12	04/11/2018		190.0000		
Barium, total	ug/L	MW-12	10/16/2018		116.0000		
Barium, total	ug/L	MW-12	04/17/2019		205.0000		
Barium, total	ug/L	MW-12	10/15/2019		152.0000		
Barium, total	ug/L	MW-12	04/06/2020		108.0000		
Barium, total	ug/L	MW-12	10/13/2020		111.0000		
Barium, total	ug/L	MW-12	04/12/2021		90.8000		
Barium, total	ug/L	MW-12	10/06/2021		105.0000		
Barium, total	ug/L	MW-12	04/14/2022		90.2000		
Barium, total	ug/L	MW-12	10/25/2022		115.0000		
Barium, total	ug/L	MW-12	04/03/2023		99.6000		
Barium, total	ug/L	MW-12	10/16/2023		129.0000		
Barium, total	ug/L	MW-12	04/22/2024		110.0000		
Barium, total	ug/L	MW-12	10/07/2024		113.0000		
Barium, total	ug/L	MW-12	04/01/2025		116.0000		
Beryllium, total	ug/L	MW-12	10/24/2014	ND	0.0390		*
Beryllium, total	ug/L	MW-12	04/07/2015	ND	0.0390		*
Beryllium, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/11/2018	ND	4.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/01/2025	ND	0.5000	4.0000	**
Cadmium, total	ug/L	MW-12	10/24/2014	ND	0.1120		*
Cadmium, total	ug/L	MW-12	04/07/2015	ND	0.1120		*
Cadmium, total	ug/L	MW-12	10/20/2015	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/11/2016	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/12/2016	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/13/2017	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/25/2017	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/11/2018	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/16/2018	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/17/2019	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/15/2019	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/13/2020	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/12/2021	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/06/2021	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/14/2022	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/25/2022	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/03/2023	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/16/2023	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/22/2024	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/07/2024	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/01/2025	ND	0.2000	0.8000	**
Chromium, total	ug/L	MW-12	10/24/2014	ND	1.2400		*
Chromium, total	ug/L	MW-12	04/07/2015	ND	1.2400		*
Chromium, total	ug/L	MW-12	10/20/2015	ND	8.0000		
Chromium, total	ug/L	MW-12	04/11/2016	ND	8.0000		
Chromium, total	ug/L	MW-12	10/12/2016	ND	8.0000		
Chromium, total	ug/L	MW-12	04/13/2017	ND	8.0000		
Chromium, total	ug/L	MW-12	10/25/2017	ND	8.0000		
Chromium, total	ug/L	MW-12	04/11/2018	ND	8.0000		
Chromium, total	ug/L	MW-12	10/16/2018	ND	8.0000		
Chromium, total	ug/L	MW-12	04/17/2019	ND	8.0000		
Chromium, total	ug/L	MW-12	10/15/2019	ND	8.0000		
Chromium, total	ug/L	MW-12	04/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-12	10/13/2020	ND	8.0000		
Chromium, total	ug/L	MW-12	04/12/2021	ND	8.0000		
Chromium, total	ug/L	MW-12	10/06/2021	ND	8.0000		
Chromium, total	ug/L	MW-12	04/14/2022	ND	8.0000		
Chromium, total	ug/L	MW-12	10/25/2022	ND	8.0000		
Chromium, total	ug/L	MW-12	04/03/2023	ND	8.0000		
Chromium, total	ug/L	MW-12	10/16/2023	ND	8.0000		
Chromium, total	ug/L	MW-12	04/22/2024	ND	8.0000		
Chromium, total	ug/L	MW-12	10/07/2024	ND	8.0000		
Chromium, total	ug/L	MW-12	04/01/2025	ND	1.1000		*
Cobalt, total	ug/L	MW-12	10/24/2014	ND	0.0528		*
Cobalt, total	ug/L	MW-12	04/07/2015	ND	0.0528		*
Cobalt, total	ug/L	MW-12	10/20/2015	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	04/11/2016	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	10/12/2016	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	04/13/2017	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	10/25/2017	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	04/11/2018	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	10/16/2018	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	04/17/2019	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	10/15/2019	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	04/06/2020	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	10/13/2020	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	04/12/2021	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	10/06/2021	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	04/14/2022	ND	0.4000	0.5000	**

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cobalt, total	ug/L	MW-12	10/25/2022	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	04/03/2023	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	10/16/2023		0.7000		
Cobalt, total	ug/L	MW-12	04/22/2024	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	10/07/2024	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	04/01/2025	ND	0.5000		
Copper, total	ug/L	MW-12	10/24/2014		5.7500		
Copper, total	ug/L	MW-12	04/07/2015	ND	0.4850		*
Copper, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Copper, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Copper, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Copper, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Copper, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Copper, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Copper, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Copper, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Copper, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Copper, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Copper, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Copper, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Copper, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Copper, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Copper, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Copper, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Copper, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Copper, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Copper, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Copper, total	ug/L	MW-12	04/01/2025	ND	5.0000	4.0000	**
Lead, total	ug/L	MW-12	10/24/2014	ND	0.0967		*
Lead, total	ug/L	MW-12	04/07/2015	ND	0.0967		*
Lead, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Lead, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Lead, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Lead, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Lead, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Lead, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Lead, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Lead, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Lead, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Lead, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Lead, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Lead, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Lead, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Lead, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Lead, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Lead, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Lead, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Lead, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Lead, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Lead, total	ug/L	MW-12	04/01/2025	ND	1.0000	4.0000	**
Nickel, total	ug/L	MW-12	10/24/2014	ND	1.0000		*
Nickel, total	ug/L	MW-12	04/07/2015	ND	0.5810		*
Nickel, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Nickel, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Nickel, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Nickel, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Nickel, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Nickel, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Nickel, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Nickel, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Nickel, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Nickel, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Nickel, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Nickel, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Nickel, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Nickel, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Nickel, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Nickel, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Nickel, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Nickel, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Nickel, total	ug/L	MW-12	04/01/2025	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-12	10/24/2014	ND	3.3400	4.0000	**
Selenium, total	ug/L	MW-12	04/07/2015	ND	3.3400	4.0000	**

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Selenium, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Selenium, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Selenium, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Selenium, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Selenium, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Selenium, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Selenium, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Selenium, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Selenium, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Selenium, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Selenium, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Selenium, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Selenium, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Selenium, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Selenium, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Selenium, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Selenium, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Selenium, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Selenium, total	ug/L	MW-12	04/01/2025	ND	2.0000	4.0000	**
Silver, total	ug/L	MW-12	10/24/2014	ND	0.0420		*
Silver, total	ug/L	MW-12	04/07/2015	ND	0.0420		*
Silver, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Silver, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Silver, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Silver, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Silver, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Silver, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Silver, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Silver, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Silver, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Silver, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Silver, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Silver, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Silver, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Silver, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Silver, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Silver, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Silver, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Silver, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Silver, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Silver, total	ug/L	MW-12	04/01/2025	ND	5.0000	4.0000	**
Thallium, total	ug/L	MW-12	10/24/2014	ND	0.0325		*
Thallium, total	ug/L	MW-12	04/07/2015	ND	0.0325		*
Thallium, total	ug/L	MW-12	10/20/2015	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/11/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/12/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/13/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/25/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/11/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/16/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/17/2019	ND	2.0000		
Thallium, total	ug/L	MW-12	10/15/2019	ND	2.0000		
Thallium, total	ug/L	MW-12	04/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-12	10/13/2020	ND	2.0000		
Thallium, total	ug/L	MW-12	04/12/2021	ND	2.0000		
Thallium, total	ug/L	MW-12	10/06/2021	ND	2.0000		
Thallium, total	ug/L	MW-12	04/14/2022	ND	2.0000		
Thallium, total	ug/L	MW-12	10/25/2022	ND	2.0000		
Thallium, total	ug/L	MW-12	04/03/2023	ND	2.0000		
Thallium, total	ug/L	MW-12	10/16/2023	ND	2.0000		
Thallium, total	ug/L	MW-12	04/22/2024	ND	2.0000		
Thallium, total	ug/L	MW-12	10/07/2024	ND	2.0000		
Thallium, total	ug/L	MW-12	04/01/2025	ND	0.5000	2.0000	**
Vanadium, total	ug/L	MW-12	10/24/2014	ND	1.0000		*
Vanadium, total	ug/L	MW-12	04/07/2015	ND	0.4490		*
Vanadium, total	ug/L	MW-12	10/20/2015	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/11/2016	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/12/2016	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/13/2017	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/25/2017	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/11/2018	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/16/2018	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/17/2019	ND	20.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Vanadium, total	ug/L	MW-12	10/15/2019	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/13/2020	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/12/2021	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/06/2021	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/14/2022	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/25/2022	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/03/2023	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/16/2023	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/22/2024	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/07/2024	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/01/2025	ND	2.0000	20.0000	**
Zinc, total	ug/L	MW-12	10/24/2014	ND	6.9500	20.0000	**
Zinc, total	ug/L	MW-12	04/07/2015	ND	6.9500	20.0000	**
Zinc, total	ug/L	MW-12	10/20/2015	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	04/11/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	10/12/2016	ND	20.0000		
Zinc, total	ug/L	MW-12	04/13/2017		8.0000		
Zinc, total	ug/L	MW-12	10/25/2017		8.9000		
Zinc, total	ug/L	MW-12	04/11/2018	ND	20.0000		
Zinc, total	ug/L	MW-12	10/16/2018		16.6000		
Zinc, total	ug/L	MW-12	04/17/2019	ND	20.0000		
Zinc, total	ug/L	MW-12	10/15/2019	ND	20.0000		
Zinc, total	ug/L	MW-12	04/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-12	10/13/2020	ND	20.0000		
Zinc, total	ug/L	MW-12	04/12/2021	ND	20.0000		
Zinc, total	ug/L	MW-12	10/06/2021	ND	20.0000		
Zinc, total	ug/L	MW-12	04/14/2022	ND	20.0000		
Zinc, total	ug/L	MW-12	10/25/2022	ND	20.0000		
Zinc, total	ug/L	MW-12	04/03/2023	ND	20.0000		
Zinc, total	ug/L	MW-12	10/16/2023	ND	20.0000		
Zinc, total	ug/L	MW-12	04/22/2024	ND	20.0000		
Zinc, total	ug/L	MW-12	10/07/2024	ND	20.0000		
Zinc, total	ug/L	MW-12	04/01/2025		5.4000		
Antimony, total	ug/L	MW-17	10/24/2014	ND	0.5410		*
Antimony, total	ug/L	MW-17	04/07/2015	ND	0.1610		*
Antimony, total	ug/L	MW-17	10/20/2015	ND	2.0000		
Antimony, total	ug/L	MW-17	04/11/2016	ND	2.0000		
Antimony, total	ug/L	MW-17	10/12/2016	ND	2.0000		
Antimony, total	ug/L	MW-17	04/13/2017	ND	2.0000		
Antimony, total	ug/L	MW-17	10/25/2017	ND	2.0000		
Antimony, total	ug/L	MW-17	04/11/2018	ND	2.0000		
Antimony, total	ug/L	MW-17	10/16/2018	ND	2.0000		
Antimony, total	ug/L	MW-17	04/17/2019	ND	2.0000		
Antimony, total	ug/L	MW-17	10/15/2019	ND	2.0000		
Antimony, total	ug/L	MW-17	04/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-17	10/13/2020	ND	2.0000		
Antimony, total	ug/L	MW-17	04/12/2021	ND	2.0000		
Antimony, total	ug/L	MW-17	10/06/2021	ND	2.0000		
Antimony, total	ug/L	MW-17	04/14/2022	ND	2.0000		
Antimony, total	ug/L	MW-17	10/25/2022	ND	2.0000		
Antimony, total	ug/L	MW-17	04/03/2023	ND	2.0000		
Antimony, total	ug/L	MW-17	10/16/2023	ND	2.0000		
Antimony, total	ug/L	MW-17	04/22/2024	ND	2.0000		
Antimony, total	ug/L	MW-17	10/07/2024	ND	2.0000		
Antimony, total	ug/L	MW-17	04/01/2025	ND	1.0000	2.0000	**
Arsenic, total	ug/L	MW-17	10/24/2014	ND	0.9450		*
Arsenic, total	ug/L	MW-17	04/07/2015	ND	0.9450		*
Arsenic, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/16/2018	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/03/2023	ND	4.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Arsenic, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/01/2025	ND	2.0000	4.0000	**
Barium, total	ug/L	MW-17	10/24/2014		104.0000		
Barium, total	ug/L	MW-17	04/07/2015		106.0000		
Barium, total	ug/L	MW-17	10/20/2015		93.0000		
Barium, total	ug/L	MW-17	04/11/2016		104.0000		
Barium, total	ug/L	MW-17	10/12/2016		93.6000		
Barium, total	ug/L	MW-17	04/13/2017		107.0000		
Barium, total	ug/L	MW-17	10/25/2017		98.8000		
Barium, total	ug/L	MW-17	04/11/2018		102.0000		
Barium, total	ug/L	MW-17	10/16/2018		113.0000		
Barium, total	ug/L	MW-17	04/17/2019		109.0000		
Barium, total	ug/L	MW-17	10/15/2019		108.0000		
Barium, total	ug/L	MW-17	04/06/2020		110.0000		
Barium, total	ug/L	MW-17	10/13/2020		104.0000		
Barium, total	ug/L	MW-17	04/12/2021		109.0000		
Barium, total	ug/L	MW-17	10/06/2021		102.0000		
Barium, total	ug/L	MW-17	04/14/2022		115.0000		
Barium, total	ug/L	MW-17	10/25/2022		123.0000		
Barium, total	ug/L	MW-17	04/03/2023		109.0000		
Barium, total	ug/L	MW-17	10/16/2023		111.0000		
Barium, total	ug/L	MW-17	04/22/2024		103.0000		
Barium, total	ug/L	MW-17	10/07/2024		97.6000		
Barium, total	ug/L	MW-17	04/01/2025		110.0000		
Beryllium, total	ug/L	MW-17	10/24/2014	ND	0.0390		*
Beryllium, total	ug/L	MW-17	04/07/2015	ND	0.0390		*
Beryllium, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/16/2018	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/01/2025	ND	0.5000	4.0000	**
Cadmium, total	ug/L	MW-17	10/24/2014	ND	0.1120		*
Cadmium, total	ug/L	MW-17	04/07/2015	ND	0.1120		*
Cadmium, total	ug/L	MW-17	10/20/2015	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/11/2016	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/12/2016	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/13/2017	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/25/2017	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/11/2018	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/16/2018	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/17/2019	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/15/2019	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/13/2020	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/12/2021	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/06/2021	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/14/2022	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/25/2022	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/03/2023	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/16/2023	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/22/2024	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/07/2024	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/01/2025	ND	0.2000	0.8000	**
Chromium, total	ug/L	MW-17	10/24/2014	ND	1.2400		*
Chromium, total	ug/L	MW-17	04/07/2015	ND	1.2400		*
Chromium, total	ug/L	MW-17	10/20/2015	ND	8.0000		
Chromium, total	ug/L	MW-17	04/11/2016	ND	8.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chromium, total	ug/L	MW-17	10/12/2016	ND	8.0000		
Chromium, total	ug/L	MW-17	04/13/2017	ND	8.0000		
Chromium, total	ug/L	MW-17	10/25/2017	ND	8.0000		
Chromium, total	ug/L	MW-17	04/11/2018	ND	8.0000		
Chromium, total	ug/L	MW-17	10/16/2018	ND	8.0000		
Chromium, total	ug/L	MW-17	04/17/2019	ND	8.0000		
Chromium, total	ug/L	MW-17	10/15/2019	ND	8.0000		
Chromium, total	ug/L	MW-17	04/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-17	10/13/2020	ND	8.0000		
Chromium, total	ug/L	MW-17	04/12/2021	ND	8.0000		
Chromium, total	ug/L	MW-17	10/06/2021	ND	8.0000		
Chromium, total	ug/L	MW-17	04/14/2022	ND	8.0000		
Chromium, total	ug/L	MW-17	10/25/2022	ND	8.0000		
Chromium, total	ug/L	MW-17	04/03/2023	ND	8.0000		
Chromium, total	ug/L	MW-17	10/16/2023	ND	8.0000		
Chromium, total	ug/L	MW-17	04/22/2024	ND	8.0000		
Chromium, total	ug/L	MW-17	10/07/2024	ND	8.0000		
Chromium, total	ug/L	MW-17	04/01/2025	ND	1.0000		*
Cobalt, total	ug/L	MW-17	10/24/2014	ND	0.2000	0.5000	**
Cobalt, total	ug/L	MW-17	04/07/2015	ND	0.2000	0.5000	**
Cobalt, total	ug/L	MW-17	10/20/2015	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	04/11/2016	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	10/12/2016	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	04/13/2017	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	10/25/2017	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	04/11/2018	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	10/16/2018	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	04/17/2019	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	10/15/2019	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	04/06/2020	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	10/13/2020	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	04/12/2021	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	10/06/2021	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	04/14/2022	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	10/25/2022	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	04/03/2023	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	10/16/2023	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	04/22/2024	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	10/07/2024	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	04/01/2025	ND	0.5000		
Copper, total	ug/L	MW-17	10/24/2014		3.6500		
Copper, total	ug/L	MW-17	04/07/2015	ND	0.4850		*
Copper, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Copper, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Copper, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Copper, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Copper, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Copper, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Copper, total	ug/L	MW-17	10/16/2018		7.9000		
Copper, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Copper, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Copper, total	ug/L	MW-17	04/06/2020	ND	4.0000		
Copper, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Copper, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Copper, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Copper, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Copper, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Copper, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Copper, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Copper, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Copper, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Copper, total	ug/L	MW-17	04/01/2025	ND	5.0000	4.0000	**
Lead, total	ug/L	MW-17	10/24/2014	ND	0.5000		*
Lead, total	ug/L	MW-17	04/07/2015	ND	0.5000		*
Lead, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Lead, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Lead, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Lead, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Lead, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Lead, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Lead, total	ug/L	MW-17	10/16/2018		7.3000		*
Lead, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Lead, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Lead, total	ug/L	MW-17	04/06/2020	ND	4.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Lead, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Lead, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Lead, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Lead, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Lead, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Lead, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Lead, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Lead, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Lead, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Lead, total	ug/L	MW-17	04/01/2025	ND	1.0000	4.0000	**
Nickel, total	ug/L	MW-17	10/24/2014	ND	1.0000		*
Nickel, total	ug/L	MW-17	04/07/2015	ND	0.5810		*
Nickel, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Nickel, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Nickel, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Nickel, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Nickel, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Nickel, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Nickel, total	ug/L	MW-17	10/16/2018	ND	4.0000		
Nickel, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Nickel, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Nickel, total	ug/L	MW-17	04/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Nickel, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Nickel, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Nickel, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Nickel, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Nickel, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Nickel, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Nickel, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Nickel, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Nickel, total	ug/L	MW-17	04/01/2025	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-17	10/24/2014	ND	3.3400	4.0000	**
Selenium, total	ug/L	MW-17	04/07/2015	ND	3.3400	4.0000	**
Selenium, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Selenium, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Selenium, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Selenium, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Selenium, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Selenium, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Selenium, total	ug/L	MW-17	10/16/2018	ND	4.0000		
Selenium, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Selenium, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Selenium, total	ug/L	MW-17	04/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Selenium, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Selenium, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Selenium, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Selenium, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Selenium, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Selenium, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Selenium, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Selenium, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Selenium, total	ug/L	MW-17	04/01/2025	ND	2.0000	4.0000	**
Silver, total	ug/L	MW-17	10/24/2014	ND	0.0420		*
Silver, total	ug/L	MW-17	04/07/2015	ND	0.0420		*
Silver, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Silver, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Silver, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Silver, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Silver, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Silver, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Silver, total	ug/L	MW-17	10/16/2018	ND	4.0000		
Silver, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Silver, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Silver, total	ug/L	MW-17	04/06/2020	ND	4.0000		
Silver, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Silver, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Silver, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Silver, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Silver, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Silver, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Silver, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Silver, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Silver, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Silver, total	ug/L	MW-17	04/01/2025	ND	4.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Silver, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Silver, total	ug/L	MW-17	04/01/2025	ND	5.0000	4.0000	**
Thallium, total	ug/L	MW-17	10/24/2014	ND	0.0325		*
Thallium, total	ug/L	MW-17	04/07/2015	ND	1.0000	2.0000	**
Thallium, total	ug/L	MW-17	10/20/2015	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	04/11/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	10/12/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	04/13/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	10/25/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	04/11/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	10/16/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	04/17/2019	ND	2.0000		
Thallium, total	ug/L	MW-17	10/15/2019	ND	2.0000		
Thallium, total	ug/L	MW-17	04/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-17	10/13/2020	ND	2.0000		
Thallium, total	ug/L	MW-17	04/12/2021	ND	2.0000		
Thallium, total	ug/L	MW-17	10/06/2021	ND	2.0000		
Thallium, total	ug/L	MW-17	04/14/2022	ND	2.0000		
Thallium, total	ug/L	MW-17	10/25/2022	ND	2.0000		
Thallium, total	ug/L	MW-17	04/03/2023	ND	2.0000		
Thallium, total	ug/L	MW-17	10/16/2023	ND	2.0000		
Thallium, total	ug/L	MW-17	04/22/2024	ND	2.0000		
Thallium, total	ug/L	MW-17	10/07/2024	ND	2.0000		
Thallium, total	ug/L	MW-17	04/01/2025	ND	0.5000		*
Vanadium, total	ug/L	MW-17	10/24/2014	ND	0.4490		*
Vanadium, total	ug/L	MW-17	04/07/2015	ND	0.4490		*
Vanadium, total	ug/L	MW-17	10/20/2015	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/11/2016	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/12/2016	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/13/2017	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/25/2017	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/11/2018	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/16/2018	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/17/2019	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/15/2019	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/13/2020	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/12/2021	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/06/2021	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/14/2022	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/25/2022	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/03/2023	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/16/2023	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/22/2024	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/07/2024	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/01/2025	ND	2.0000	20.0000	**
Zinc, total	ug/L	MW-17	10/24/2014	ND	6.9500	20.0000	**
Zinc, total	ug/L	MW-17	04/07/2015	ND	6.9500	20.0000	**
Zinc, total	ug/L	MW-17	10/20/2015	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-17	04/11/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-17	10/12/2016	ND	20.0000		
Zinc, total	ug/L	MW-17	04/13/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-17	10/25/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-17	04/11/2018	ND	20.0000		
Zinc, total	ug/L	MW-17	10/16/2018		382.0000		*
Zinc, total	ug/L	MW-17	04/17/2019	ND	20.0000		
Zinc, total	ug/L	MW-17	10/15/2019	ND	20.0000		
Zinc, total	ug/L	MW-17	04/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-17	10/13/2020	ND	20.0000		
Zinc, total	ug/L	MW-17	04/12/2021	ND	20.0000		
Zinc, total	ug/L	MW-17	10/06/2021	ND	20.0000		
Zinc, total	ug/L	MW-17	04/14/2022	ND	20.0000		
Zinc, total	ug/L	MW-17	10/25/2022	ND	20.0000		
Zinc, total	ug/L	MW-17	04/03/2023	ND	20.0000		
Zinc, total	ug/L	MW-17	10/16/2023	ND	20.0000		
Zinc, total	ug/L	MW-17	04/22/2024	ND	20.0000		
Zinc, total	ug/L	MW-17	10/07/2024	ND	20.0000		
Zinc, total	ug/L	MW-17	04/01/2025	ND	5.0000	20.0000	**
Antimony, total	ug/L	MW-21	10/24/2014	ND	0.1610		*
Antimony, total	ug/L	MW-21	04/07/2015	ND	0.1610		*
Antimony, total	ug/L	MW-21	10/20/2015	ND	2.0000		
Antimony, total	ug/L	MW-21	04/11/2016	ND	2.0000		
Antimony, total	ug/L	MW-21	10/12/2016	ND	2.0000		
Antimony, total	ug/L	MW-21	04/13/2017	ND	2.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, total	ug/L	MW-21	10/25/2017	ND	2.0000		
Antimony, total	ug/L	MW-21	04/11/2018	ND	2.0000		
Antimony, total	ug/L	MW-21	10/16/2018	ND	2.0000		
Antimony, total	ug/L	MW-21	04/17/2019	ND	2.0000		
Antimony, total	ug/L	MW-21	10/15/2019	ND	2.0000		
Antimony, total	ug/L	MW-21	04/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-21	10/13/2020	ND	2.0000		
Antimony, total	ug/L	MW-21	04/12/2021	ND	2.0000		
Antimony, total	ug/L	MW-21	10/06/2021	ND	2.0000		
Antimony, total	ug/L	MW-21	04/14/2022	ND	2.0000		
Antimony, total	ug/L	MW-21	04/03/2023	ND	2.0000		
Antimony, total	ug/L	MW-21	04/22/2024	ND	2.0000		
Antimony, total	ug/L	MW-21	10/07/2024	ND	2.0000		
Antimony, total	ug/L	MW-21	04/01/2025	ND	1.0000	2.0000	**
Arsenic, total	ug/L	MW-21	10/24/2014	ND	0.9450		*
Arsenic, total	ug/L	MW-21	04/07/2015	ND	0.9450		*
Arsenic, total	ug/L	MW-21	10/20/2015	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/07/2024	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/01/2025	ND	2.0000	4.0000	**
Barium, total	ug/L	MW-21	10/24/2014		51.9000		
Barium, total	ug/L	MW-21	04/07/2015		48.7000		
Barium, total	ug/L	MW-21	10/20/2015		36.1000		
Barium, total	ug/L	MW-21	04/11/2016		55.9000		
Barium, total	ug/L	MW-21	10/12/2016		66.9000		
Barium, total	ug/L	MW-21	04/13/2017		49.2000		
Barium, total	ug/L	MW-21	10/25/2017		98.3000		
Barium, total	ug/L	MW-21	04/11/2018		35.3000		
Barium, total	ug/L	MW-21	10/16/2018		64.7000		
Barium, total	ug/L	MW-21	04/17/2019		85.0000		
Barium, total	ug/L	MW-21	10/15/2019		64.0000		
Barium, total	ug/L	MW-21	04/06/2020		48.7000		
Barium, total	ug/L	MW-21	10/13/2020		99.4000		
Barium, total	ug/L	MW-21	04/12/2021		38.6000		
Barium, total	ug/L	MW-21	10/06/2021		104.0000		
Barium, total	ug/L	MW-21	04/14/2022		52.1000		
Barium, total	ug/L	MW-21	04/03/2023		41.9000		
Barium, total	ug/L	MW-21	04/22/2024		45.2000		
Barium, total	ug/L	MW-21	10/07/2024		208.0000		
Barium, total	ug/L	MW-21	04/01/2025		44.5000		
Beryllium, total	ug/L	MW-21	10/24/2014	ND	0.0390		*
Beryllium, total	ug/L	MW-21	04/07/2015	ND	0.0390		*
Beryllium, total	ug/L	MW-21	10/20/2015	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/07/2024	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/01/2025	ND	0.5000	4.0000	**

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cadmium, total	ug/L	MW-21	10/24/2014	ND	0.1120		*
Cadmium, total	ug/L	MW-21	04/07/2015	ND	0.1120		*
Cadmium, total	ug/L	MW-21	10/20/2015	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/11/2016	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/12/2016	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/13/2017	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/25/2017	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/11/2018	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/16/2018	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/17/2019	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/15/2019	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/13/2020	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/12/2021	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/06/2021	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/14/2022	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/03/2023	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/22/2024	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/07/2024	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/01/2025	ND	0.2000	0.8000	**
Chromium, total	ug/L	MW-21	10/24/2014	ND	1.2400		*
Chromium, total	ug/L	MW-21	04/07/2015	ND	1.2400		*
Chromium, total	ug/L	MW-21	10/20/2015	ND	8.0000		
Chromium, total	ug/L	MW-21	04/11/2016	ND	8.0000		
Chromium, total	ug/L	MW-21	10/12/2016	ND	8.0000		
Chromium, total	ug/L	MW-21	04/13/2017	ND	8.0000		
Chromium, total	ug/L	MW-21	10/25/2017	ND	8.0000		
Chromium, total	ug/L	MW-21	04/11/2018	ND	8.0000		
Chromium, total	ug/L	MW-21	10/16/2018	ND	8.0000		
Chromium, total	ug/L	MW-21	04/17/2019	ND	8.0000		
Chromium, total	ug/L	MW-21	10/15/2019	ND	8.0000		
Chromium, total	ug/L	MW-21	04/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-21	10/13/2020	ND	8.0000		
Chromium, total	ug/L	MW-21	04/12/2021	ND	8.0000		
Chromium, total	ug/L	MW-21	10/06/2021	ND	8.0000		
Chromium, total	ug/L	MW-21	04/14/2022	ND	8.0000		
Chromium, total	ug/L	MW-21	04/03/2023	ND	8.0000		
Chromium, total	ug/L	MW-21	04/22/2024	ND	8.0000		
Chromium, total	ug/L	MW-21	10/07/2024	ND	8.0000		
Chromium, total	ug/L	MW-21	04/01/2025	ND	1.0000		*
Cobalt, total	ug/L	MW-21	10/24/2014	ND	0.0528		*
Cobalt, total	ug/L	MW-21	04/07/2015	ND	0.0528		*
Cobalt, total	ug/L	MW-21	10/20/2015	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	04/11/2016	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	10/12/2016	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	04/13/2017	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	10/25/2017	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	04/11/2018	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	10/16/2018	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	04/17/2019	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	10/15/2019	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	04/06/2020	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-21	10/13/2020	ND	0.4000		
Cobalt, total	ug/L	MW-21	04/12/2021	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-21	10/06/2021	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-21	04/14/2022	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-21	04/03/2023	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-21	04/22/2024	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-21	10/07/2024	ND	2.9000		*
Cobalt, total	ug/L	MW-21	04/01/2025	ND	0.5000		*
Copper, total	ug/L	MW-21	10/24/2014	ND	0.4850		*
Copper, total	ug/L	MW-21	04/07/2015	ND	0.4850		*
Copper, total	ug/L	MW-21	10/20/2015	ND	4.0000		
Copper, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Copper, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Copper, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Copper, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Copper, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Copper, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Copper, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Copper, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Copper, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Copper, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Copper, total	ug/L	MW-21	04/12/2021	ND	4.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Copper, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Copper, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Copper, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Copper, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Copper, total	ug/L	MW-21	10/07/2024	ND	4.0000		
Copper, total	ug/L	MW-21	04/01/2025	ND	5.0000	4.0000	**
Lead, total	ug/L	MW-21	10/24/2014	ND	0.0967		*
Lead, total	ug/L	MW-21	04/07/2015	ND	0.5000		*
Lead, total	ug/L	MW-21	10/20/2015	ND	4.0000		
Lead, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Lead, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Lead, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Lead, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Lead, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Lead, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Lead, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Lead, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Lead, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Lead, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Lead, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Lead, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Lead, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Lead, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Lead, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Lead, total	ug/L	MW-21	10/07/2024	ND	4.0000		
Lead, total	ug/L	MW-21	04/01/2025	ND	1.0000	4.0000	**
Nickel, total	ug/L	MW-21	10/24/2014	ND	10.0000	4.0000	**
Nickel, total	ug/L	MW-21	04/07/2015	ND	0.5810		*
Nickel, total	ug/L	MW-21	10/20/2015	ND	4.3000		
Nickel, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Nickel, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Nickel, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Nickel, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Nickel, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Nickel, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Nickel, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Nickel, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Nickel, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Nickel, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Nickel, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Nickel, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Nickel, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Nickel, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Nickel, total	ug/L	MW-21	10/07/2024	ND	11.6000		
Nickel, total	ug/L	MW-21	04/01/2025	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-21	10/24/2014	ND	3.3400	4.0000	**
Selenium, total	ug/L	MW-21	04/07/2015	ND	3.3400	4.0000	**
Selenium, total	ug/L	MW-21	10/20/2015	ND	4.0000		
Selenium, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Selenium, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Selenium, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Selenium, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Selenium, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Selenium, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Selenium, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Selenium, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Selenium, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Selenium, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Selenium, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Selenium, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Selenium, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Selenium, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Selenium, total	ug/L	MW-21	10/07/2024	ND	4.0000		
Selenium, total	ug/L	MW-21	04/01/2025	ND	2.1000		
Silver, total	ug/L	MW-21	10/24/2014	ND	0.0420		*
Silver, total	ug/L	MW-21	04/07/2015	ND	0.0420		*
Silver, total	ug/L	MW-21	10/20/2015	ND	4.0000		
Silver, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Silver, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Silver, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Silver, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Silver, total	ug/L	MW-21	04/11/2018	ND	4.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Silver, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Silver, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Silver, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Silver, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Silver, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Silver, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Silver, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Silver, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Silver, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Silver, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Silver, total	ug/L	MW-21	10/07/2024	ND	4.0000		
Silver, total	ug/L	MW-21	04/01/2025	ND	5.0000	4.0000	**
Thallium, total	ug/L	MW-21	10/24/2014	ND	0.0325		*
Thallium, total	ug/L	MW-21	04/07/2015	ND	0.0325		*
Thallium, total	ug/L	MW-21	10/20/2015	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	04/11/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	10/12/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	04/13/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	10/25/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	04/11/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	10/16/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	04/17/2019	ND	2.0000		
Thallium, total	ug/L	MW-21	10/15/2019	ND	2.0000		
Thallium, total	ug/L	MW-21	04/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-21	10/13/2020	ND	2.0000		
Thallium, total	ug/L	MW-21	04/12/2021	ND	2.0000		
Thallium, total	ug/L	MW-21	10/06/2021	ND	2.0000		
Thallium, total	ug/L	MW-21	04/14/2022	ND	2.0000		
Thallium, total	ug/L	MW-21	04/03/2023	ND	2.0000		
Thallium, total	ug/L	MW-21	04/22/2024	ND	2.0000		
Thallium, total	ug/L	MW-21	10/07/2024	ND	2.0000		
Thallium, total	ug/L	MW-21	04/01/2025	ND	0.5000	2.0000	**
Vanadium, total	ug/L	MW-21	10/24/2014	ND	0.4490		*
Vanadium, total	ug/L	MW-21	04/07/2015	ND	0.4490		*
Vanadium, total	ug/L	MW-21	10/20/2015	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/11/2016	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/12/2016	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/13/2017	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/25/2017	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/11/2018	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/16/2018	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/17/2019	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/15/2019	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/13/2020	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/12/2021	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/06/2021	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/14/2022	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/03/2023	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/22/2024	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/07/2024	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/01/2025	ND	2.0000	20.0000	**
Zinc, total	ug/L	MW-21	10/24/2014	ND	6.9500	20.0000	**
Zinc, total	ug/L	MW-21	04/07/2015	ND	6.9500	20.0000	**
Zinc, total	ug/L	MW-21	10/20/2015	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-21	04/11/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-21	10/12/2016	ND	20.0000		
Zinc, total	ug/L	MW-21	04/13/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-21	10/25/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-21	04/11/2018		20.8000		
Zinc, total	ug/L	MW-21	10/16/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-21	04/17/2019	ND	20.0000		
Zinc, total	ug/L	MW-21	10/15/2019	ND	20.0000		
Zinc, total	ug/L	MW-21	04/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-21	10/13/2020	ND	20.0000		
Zinc, total	ug/L	MW-21	04/12/2021	ND	20.0000		
Zinc, total	ug/L	MW-21	10/06/2021	ND	20.0000		
Zinc, total	ug/L	MW-21	04/14/2022	ND	20.0000		
Zinc, total	ug/L	MW-21	04/03/2023	ND	20.0000		
Zinc, total	ug/L	MW-21	04/22/2024	ND	20.0000		
Zinc, total	ug/L	MW-21	10/07/2024	ND	20.0000		
Zinc, total	ug/L	MW-21	04/01/2025		6.1000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, total	ug/L	MW-16	04/01/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-16	04/01/2025	ND	2.0000		4.0000
Barium, total	ug/L	MW-16	04/01/2025		137.0000		271.0573
Beryllium, total	ug/L	MW-16	04/01/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-16	04/01/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-16	04/01/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-16	04/01/2025	ND	0.5000		0.7000
Copper, total	ug/L	MW-16	04/01/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-16	04/01/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-16	04/01/2025	ND	5.0000		11.6000
Selenium, total	ug/L	MW-16	04/01/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-16	04/01/2025	ND	5.0000		4.0000
Thallium, total	ug/L	MW-16	04/01/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-16	04/01/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-16	04/01/2025		6.3000		20.8000
Antimony, total	ug/L	MW-24	04/01/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-24	04/01/2025		4.8000	***	4.0000
Barium, total	ug/L	MW-24	04/01/2025		522.0000	***	271.0573
Beryllium, total	ug/L	MW-24	04/01/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-24	04/01/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-24	04/01/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-24	04/01/2025		1.7000	***	0.7000
Copper, total	ug/L	MW-24	04/01/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-24	04/01/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-24	04/01/2025		35.6000	***	11.6000
Selenium, total	ug/L	MW-24	04/01/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-24	04/01/2025	ND	5.0000		4.0000
Thallium, total	ug/L	MW-24	04/01/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-24	04/01/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-24	04/01/2025		8.6000		20.8000
Antimony, total	ug/L	MW-25	04/01/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-25	04/01/2025	ND	2.0000		4.0000
Barium, total	ug/L	MW-25	04/01/2025		18.7000		271.0573
Beryllium, total	ug/L	MW-25	04/01/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-25	04/01/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-25	04/01/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-25	04/01/2025	ND	0.5000		0.7000
Copper, total	ug/L	MW-25	04/01/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-25	04/01/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-25	04/01/2025	ND	5.0000		11.6000
Selenium, total	ug/L	MW-25	04/01/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-25	04/01/2025	ND	5.0000		4.0000
Thallium, total	ug/L	MW-25	04/01/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-25	04/01/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-25	04/01/2025		9.2000		20.8000
Antimony, total	ug/L	MW-26	04/01/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-26	04/01/2025	ND	2.0000		4.0000
Barium, total	ug/L	MW-26	04/01/2025		34.0000		271.0573
Beryllium, total	ug/L	MW-26	04/01/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-26	04/01/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-26	04/01/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-26	04/01/2025		3.4000	***	0.7000
Copper, total	ug/L	MW-26	04/01/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-26	04/01/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-26	04/01/2025		5.3000		11.6000
Selenium, total	ug/L	MW-26	04/01/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-26	04/01/2025	ND	5.0000		4.0000
Thallium, total	ug/L	MW-26	04/01/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-26	04/01/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-26	04/01/2025		7.4000		20.8000
Antimony, total	ug/L	MW-32	04/01/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-32	04/01/2025	ND	2.0000	**	4.0000
Barium, total	ug/L	MW-32	04/01/2025		444.0000	***	271.0573
Beryllium, total	ug/L	MW-32	04/01/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-32	04/01/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-32	04/01/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-32	04/01/2025		0.9000	*	0.7000
Copper, total	ug/L	MW-32	04/01/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-32	04/01/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-32	04/01/2025	ND	5.0000		11.6000
Selenium, total	ug/L	MW-32	04/01/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-32	04/01/2025	ND	5.0000		4.0000

* - Current value failed - awaiting verification.

** - Current value passed - previous exceedance not verified.

*** - Current value failed - exceedance verified.

**** - Current value passed - awaiting one more verification.

***** - Insufficient background data to compute prediction limit.

ND = Not Detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Thallium, total	ug/L	MW-32	04/01/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-32	04/01/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-32	04/01/2025	ND	5.0000		20.8000
Antimony, total	ug/L	MW-33	04/01/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-33	04/01/2025	ND	2.0000	**	4.0000
Barium, total	ug/L	MW-33	04/01/2025		129.0000		271.0573
Beryllium, total	ug/L	MW-33	04/01/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-33	04/01/2025		0.3000	**	0.8000
Chromium, total	ug/L	MW-33	04/01/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-33	04/01/2025		18.7000	***	0.7000
Copper, total	ug/L	MW-33	04/01/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-33	04/01/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-33	04/01/2025		15.0000	***	11.6000
Selenium, total	ug/L	MW-33	04/01/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-33	04/01/2025	ND	5.0000		4.0000
Thallium, total	ug/L	MW-33	04/01/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-33	04/01/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-33	04/01/2025	ND	5.0000		20.8000
Antimony, total	ug/L	MW-9	04/01/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-9	04/01/2025		5.9000	***	4.0000
Barium, total	ug/L	MW-9	04/01/2025		559.0000	***	271.0573
Beryllium, total	ug/L	MW-9	04/01/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-9	04/01/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-9	04/01/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-9	04/01/2025		1.8000	***	0.7000
Copper, total	ug/L	MW-9	04/01/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-9	04/01/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-9	04/01/2025	ND	5.0000		11.6000
Selenium, total	ug/L	MW-9	04/01/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-9	04/01/2025	ND	5.0000		4.0000
Thallium, total	ug/L	MW-9	04/01/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-9	04/01/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-9	04/01/2025	ND	5.0000		20.8000

* - Current value failed - awaiting verification.

** - Current value passed - previous exceedance not verified.

*** - Current value failed - exceedance verified.

**** - Current value passed - awaiting one more verification.

***** - Insufficient background data to compute prediction limit.

ND = Not Detected, Result = detection limit.

Table 3**Detection Frequencies in Upgradient and Downgradient Wells**

Constituent	Detect	Upgradient N	Proportion	Detect	Downgradient N	Proportion
Antimony, total	0	57	0.000	2	199	0.010
Arsenic, total	0	58	0.000	59	201	0.294
Barium, total	64	64	1.000	200	200	1.000
Beryllium, total	0	58	0.000	2	199	0.010
Cadmium, total	0	58	0.000	14	199	0.070
Chromium, total	0	55	0.000	4	199	0.020
Cobalt, total	2	59	0.034	104	203	0.512
Copper, total	3	60	0.050	24	199	0.121
Lead, total	0	57	0.000	15	199	0.075
Nickel, total	2	59	0.034	74	199	0.372
Selenium, total	1	64	0.016	4	200	0.020
Silver, total	0	58	0.000	1	199	0.005
Thallium, total	0	58	0.000	0	199	0.000
Vanadium, total	0	58	0.000	9	199	0.045
Zinc, total	6	63	0.095	38	200	0.190

N = Total number of measurements in all wells.

Detect = Total number of detections in all wells.

Proportion = Detect/N.

Table 4

Shapiro-Wilk Multiple Group Test of Normality

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, total	0	57	0.000									nonpar
Arsenic, total	0	58	0.000									nonpar
Barium, total	64	64	1.000	3.219	1.178					2.326	lognor	lognor
Beryllium, total	0	58	0.000									nonpar
Cadmium, total	0	58	0.000									nonpar
Chromium, total	0	55	0.000									nonpar
Cobalt, total	2	59	0.034									nonpar
Copper, total	3	60	0.050									nonpar
Lead, total	0	57	0.000									nonpar
Nickel, total	2	59	0.034									nonpar
Selenium, total	1	64	0.016									nonpar
Silver, total	0	58	0.000									nonpar
Thallium, total	0	58	0.000									nonpar
Vanadium, total	0	58	0.000									nonpar
Zinc, total	6	63	0.095	0.389	0.674					2.326	normal	nonpar

* - Distribution override for that constituent.

Fit to distribution is confirmed if G <= critical value.

Model type may not match distributional form when detection frequency < 50%.

Table 5

Summary Statistics and Prediction Limits

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type		Conf
Antimony, total	ug/L	0	57	4.5577	0.4343	0.0100	2.4056	2.0000	nonpar	***	0.99
Arsenic, total	ug/L	0	58					4.0000	nonpar	***	0.99
Barium, total	ug/L	64	64					271.0573	lognor		
Beryllium, total	ug/L	0	58					4.0000	nonpar	***	0.99
Cadmium, total	ug/L	0	58					0.8000	nonpar	***	0.99
Chromium, total	ug/L	0	55					8.0000	nonpar	***	0.99
Cobalt, total	ug/L	2	59					0.7000	nonpar		0.99
Copper, total	ug/L	3	60					7.9000	nonpar		0.99
Lead, total	ug/L	0	57					4.0000	nonpar	***	0.99
Nickel, total	ug/L	2	59					11.6000	nonpar		0.99
Selenium, total	ug/L	1	64					4.0000	nonpar	***	0.99
Silver, total	ug/L	0	58					4.0000	nonpar	***	0.99
Thallium, total	ug/L	0	58					2.0000	nonpar	***	0.99
Vanadium, total	ug/L	0	58					20.0000	nonpar	***	0.99
Zinc, total	ug/L	6	63					20.8000	nonpar		0.99

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).

* - Insufficient Data.

** - Calculated limit raised to Manual Reporting Limit.

*** - Nonparametric limit based on ND value.

For transformed data, mean and SD in transformed units and prediction limit in original units.

All sample sizes and statistics are based on outlier free data.

For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

Table 6

**Dixon's Test Outliers
1% Significance Level**

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Antimony, total	ug/L	MW-12	10/24/2014	0.1610	< 0.1610	10/24/2014-04/01/2025	22	0.5263
Antimony, total	ug/L	MW-12	04/07/2015	0.1610	< 0.1610	10/24/2014-04/01/2025	22	0.5263
Antimony, total	ug/L	MW-12	10/12/2016	6.2000		10/24/2014-04/01/2025	22	0.5162
Arsenic, total	ug/L	MW-12	10/24/2014	0.9450	< 0.9450	10/24/2014-04/01/2025	22	0.5263
Arsenic, total	ug/L	MW-12	04/07/2015	0.9450	< 0.9450	10/24/2014-04/01/2025	22	0.5263
Beryllium, total	ug/L	MW-12	10/24/2014	0.0390	< 0.0390	10/24/2014-04/01/2025	22	0.5263
Beryllium, total	ug/L	MW-12	04/07/2015	0.0390	< 0.0390	10/24/2014-04/01/2025	22	0.5263
Cadmium, total	ug/L	MW-12	10/24/2014	0.1120	< 0.1120	10/24/2014-04/01/2025	22	0.5263
Cadmium, total	ug/L	MW-12	04/07/2015	0.1120	< 0.1120	10/24/2014-04/01/2025	22	0.5263
Chromium, total	ug/L	MW-12	10/24/2014	1.2400	< 1.2400	10/24/2014-04/01/2025	22	0.5263
Chromium, total	ug/L	MW-12	04/07/2015	1.2400	< 1.2400	10/24/2014-04/01/2025	22	0.5263
Chromium, total	ug/L	MW-12	04/01/2025	1.1000		10/24/2014-04/01/2025	22	0.5263
Cobalt, total	ug/L	MW-12	10/24/2014	0.0528	< 0.0528	10/24/2014-04/01/2025	22	0.5263
Cobalt, total	ug/L	MW-12	04/07/2015	0.0528	< 0.0528	10/24/2014-04/01/2025	22	0.5263
Copper, total	ug/L	MW-12	04/07/2015	0.4850	< 0.4850	10/24/2014-04/01/2025	22	0.5162
Lead, total	ug/L	MW-12	10/24/2014	0.0967	< 0.0967	10/24/2014-04/01/2025	22	0.5263
Lead, total	ug/L	MW-12	04/07/2015	0.0967	< 0.0967	10/24/2014-04/01/2025	22	0.5263
Nickel, total	ug/L	MW-12	10/24/2014	1.0000	< 1.0000	10/24/2014-04/01/2025	22	0.5263
Nickel, total	ug/L	MW-12	04/07/2015	0.5810	< 0.5810	10/24/2014-04/01/2025	22	0.5263
Silver, total	ug/L	MW-12	10/24/2014	0.0420	< 0.0420	10/24/2014-04/01/2025	22	0.5263
Silver, total	ug/L	MW-12	04/07/2015	0.0420	< 0.0420	10/24/2014-04/01/2025	22	0.5263
Thallium, total	ug/L	MW-12	10/24/2014	0.0325	< 0.0325	10/24/2014-04/01/2025	22	0.5263
Thallium, total	ug/L	MW-12	04/07/2015	0.0325	< 0.0325	10/24/2014-04/01/2025	22	0.5263
Vanadium, total	ug/L	MW-12	10/24/2014	1.0000	< 1.0000	10/24/2014-04/01/2025	22	0.5263
Vanadium, total	ug/L	MW-12	04/07/2015	0.4490	< 0.4490	10/24/2014-04/01/2025	22	0.5263
Antimony, total	ug/L	MW-17	10/24/2014	0.5410	< 0.5410	10/24/2014-04/01/2025	22	0.5263
Antimony, total	ug/L	MW-17	04/07/2015	0.1610	< 0.1610	10/24/2014-04/01/2025	22	0.5263
Arsenic, total	ug/L	MW-17	10/24/2014	0.9450	< 0.9450	10/24/2014-04/01/2025	22	0.5263
Arsenic, total	ug/L	MW-17	04/07/2015	0.9450	< 0.9450	10/24/2014-04/01/2025	22	0.5263
Beryllium, total	ug/L	MW-17	10/24/2014	0.0390	< 0.0390	10/24/2014-04/01/2025	22	0.5263
Beryllium, total	ug/L	MW-17	04/07/2015	0.0390	< 0.0390	10/24/2014-04/01/2025	22	0.5263
Cadmium, total	ug/L	MW-17	10/24/2014	0.1120	< 0.1120	10/24/2014-04/01/2025	22	0.5263
Cadmium, total	ug/L	MW-17	04/07/2015	0.1120	< 0.1120	10/24/2014-04/01/2025	22	0.5263
Chromium, total	ug/L	MW-17	10/24/2014	1.2400	< 1.2400	10/24/2014-04/01/2025	22	0.5263
Chromium, total	ug/L	MW-17	04/07/2015	1.2400	< 1.2400	10/24/2014-04/01/2025	22	0.5263
Chromium, total	ug/L	MW-17	04/01/2025	1.0000	< 1.0000	10/24/2014-04/01/2025	22	0.5263
Copper, total	ug/L	MW-17	04/07/2015	0.4850	< 0.4850	10/24/2014-04/01/2025	22	0.5162
Lead, total	ug/L	MW-17	10/24/2014	0.5000	< 0.5000	10/24/2014-04/01/2025	21	0.5381
Lead, total	ug/L	MW-17	04/07/2015	0.5000	< 0.5000	10/24/2014-04/01/2025	21	0.5381
Nickel, total	ug/L	MW-17	10/24/2014	1.0000	< 1.0000	10/24/2014-04/01/2025	22	0.5263
Nickel, total	ug/L	MW-17	04/07/2015	0.5810	< 0.5810	10/24/2014-04/01/2025	22	0.5263
Silver, total	ug/L	MW-17	10/24/2014	0.0420	< 0.0420	10/24/2014-04/01/2025	22	0.5263
Silver, total	ug/L	MW-17	04/07/2015	0.0420	< 0.0420	10/24/2014-04/01/2025	22	0.5263
Thallium, total	ug/L	MW-17	10/24/2014	0.0325	< 0.0325	10/24/2014-04/01/2025	22	0.5263
Thallium, total	ug/L	MW-17	04/01/2025	0.5000	< 0.5000	10/24/2014-04/01/2025	22	0.5263
Vanadium, total	ug/L	MW-17	10/24/2014	0.4490	< 0.4490	10/24/2014-04/01/2025	22	0.5263
Vanadium, total	ug/L	MW-17	04/07/2015	0.4490	< 0.4490	10/24/2014-04/01/2025	22	0.5263
Antimony, total	ug/L	MW-21	10/24/2014	0.1610	< 0.1610	10/24/2014-04/01/2025	20	0.5503
Antimony, total	ug/L	MW-21	04/07/2015	0.1610	< 0.1610	10/24/2014-04/01/2025	20	0.5503
Arsenic, total	ug/L	MW-21	10/24/2014	0.9450	< 0.9450	10/24/2014-04/01/2025	20	0.5503
Arsenic, total	ug/L	MW-21	04/07/2015	0.9450	< 0.9450	10/24/2014-04/01/2025	20	0.5503
Beryllium, total	ug/L	MW-21	10/24/2014	0.0390	< 0.0390	10/24/2014-04/01/2025	20	0.5503
Beryllium, total	ug/L	MW-21	04/07/2015	0.0390	< 0.0390	10/24/2014-04/01/2025	20	0.5503
Cadmium, total	ug/L	MW-21	10/24/2014	0.1120	< 0.1120	10/24/2014-04/01/2025	20	0.5503
Cadmium, total	ug/L	MW-21	04/07/2015	0.1120	< 0.1120	10/24/2014-04/01/2025	20	0.5503
Chromium, total	ug/L	MW-21	10/24/2014	1.2400	< 1.2400	10/24/2014-04/01/2025	20	0.5503
Chromium, total	ug/L	MW-21	04/07/2015	1.2400	< 1.2400	10/24/2014-04/01/2025	20	0.5503
Chromium, total	ug/L	MW-21	04/01/2025	1.0000		10/24/2014-04/01/2025	20	0.5503
Cobalt, total	ug/L	MW-21	10/24/2014	0.0528	< 0.0528	10/24/2014-04/01/2025	20	0.5503
Cobalt, total	ug/L	MW-21	04/07/2015	0.0528	< 0.0528	10/24/2014-04/01/2025	20	0.5503
Cobalt, total	ug/L	MW-21	10/07/2024	2.9000		10/24/2014-04/01/2025	20	0.5381
Copper, total	ug/L	MW-21	10/24/2014	0.4850	< 0.4850	10/24/2014-04/01/2025	20	0.5503
Copper, total	ug/L	MW-21	04/07/2015	0.4850	< 0.4850	10/24/2014-04/01/2025	20	0.5503
Lead, total	ug/L	MW-21	10/24/2014	0.0967	< 0.0967	10/24/2014-04/01/2025	20	0.5503
Lead, total	ug/L	MW-21	04/07/2015	0.5000	< 0.5000	10/24/2014-04/01/2025	20	0.5503
Nickel, total	ug/L	MW-21	04/07/2015	0.5810	< 0.5810	10/24/2014-04/01/2025	20	0.5381
Silver, total	ug/L	MW-21	10/24/2014	0.0420	< 0.0420	10/24/2014-04/01/2025	20	0.5503
Silver, total	ug/L	MW-21	04/07/2015	0.0420	< 0.0420	10/24/2014-04/01/2025	20	0.5503
Thallium, total	ug/L	MW-21	10/24/2014	0.0325	< 0.0325	10/24/2014-04/01/2025	20	0.5503
Thallium, total	ug/L	MW-21	04/07/2015	0.0325	< 0.0325	10/24/2014-04/01/2025	20	0.5503
Vanadium, total	ug/L	MW-21	10/24/2014	0.4490	< 0.4490	10/24/2014-04/01/2025	20	0.5503
Vanadium, total	ug/L	MW-21	04/07/2015	0.4490	< 0.4490	10/24/2014-04/01/2025	20	0.5503

N = Total number of independent measurements in background at each well.

Date Range = Dates of the first and last measurements included in background at each well.

Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

Table 8

**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	MW-24	04/01/2025		35.6000	*	11.6000
Cobalt, total	ug/L	MW-26	02/18/2011	ND	20.0000		0.7000
Cobalt, total	ug/L	MW-26	04/12/2011	ND	20.0000		0.7000
Cobalt, total	ug/L	MW-26	06/21/2011	ND	20.0000		0.7000
Cobalt, total	ug/L	MW-26	08/22/2011	ND	20.0000		0.7000
Cobalt, total	ug/L	MW-26	10/10/2011	ND	1.5500		0.7000
Cobalt, total	ug/L	MW-26	12/29/2011	ND	10.0000		0.7000
Cobalt, total	ug/L	MW-26	02/07/2012		4.8600	*	0.7000
Cobalt, total	ug/L	MW-26	04/18/2012	ND	1.5500		0.7000
Cobalt, total	ug/L	MW-26	08/23/2012		2.4700	*	0.7000
Cobalt, total	ug/L	MW-26	10/10/2012	ND	10.0000		0.7000
Cobalt, total	ug/L	MW-26	04/23/2013	ND	0.5540		0.7000
Cobalt, total	ug/L	MW-26	10/28/2013		0.9430	*	0.7000
Cobalt, total	ug/L	MW-26	04/23/2014	ND	10.0000		0.7000
Cobalt, total	ug/L	MW-26	10/28/2014		16.5000	*	0.7000
Cobalt, total	ug/L	MW-26	04/28/2015	ND	0.2000		0.7000
Cobalt, total	ug/L	MW-26	10/20/2015		1.6000	*	0.7000
Cobalt, total	ug/L	MW-26	04/11/2016	ND	0.8000		0.7000
Cobalt, total	ug/L	MW-26	10/11/2016		2.9000	*	0.7000
Cobalt, total	ug/L	MW-26	04/13/2017	ND	0.8000		0.7000
Cobalt, total	ug/L	MW-26	10/26/2017		4.0000	*	0.7000
Cobalt, total	ug/L	MW-26	01/17/2018		3.4000	*	0.7000
Cobalt, total	ug/L	MW-26	04/11/2018		3.2000	*	0.7000
Cobalt, total	ug/L	MW-26	10/16/2018		2.1000	*	0.7000
Cobalt, total	ug/L	MW-26	04/17/2019	ND	0.8000		0.7000
Cobalt, total	ug/L	MW-26	10/15/2019		1.2000	*	0.7000
Cobalt, total	ug/L	MW-26	04/06/2020		1.0000	*	0.7000
Cobalt, total	ug/L	MW-26	10/14/2020		3.6000	*	0.7000
Cobalt, total	ug/L	MW-26	04/12/2021	ND	0.4000		0.7000
Cobalt, total	ug/L	MW-26	10/06/2021		3.6000	*	0.7000
Cobalt, total	ug/L	MW-26	04/14/2022		0.6000		0.7000
Cobalt, total	ug/L	MW-26	10/25/2022		0.9000	*	0.7000
Cobalt, total	ug/L	MW-26	04/03/2023	ND	0.4000		0.7000
Cobalt, total	ug/L	MW-26	10/16/2023		13.6000	*	0.7000
Cobalt, total	ug/L	MW-26	04/22/2024		1.1000	*	0.7000
Cobalt, total	ug/L	MW-26	10/07/2024		11.8000	*	0.7000
Cobalt, total	ug/L	MW-26	04/01/2025		3.4000	*	0.7000
Arsenic, total	ug/L	MW-32	04/11/2018	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-32	10/16/2018	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-32	04/18/2019	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-32	10/16/2019	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-32	04/06/2020	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-32	10/13/2020	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-32	04/12/2021		5.5000	*	4.0000
Arsenic, total	ug/L	MW-32	07/01/2021	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-32	10/06/2021	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-32	04/14/2022	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-32	10/25/2022	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-32	04/03/2023	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-32	10/16/2023		8.9000	*	4.0000
Arsenic, total	ug/L	MW-32	04/22/2024	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-32	10/07/2024		4.2000	*	4.0000
Arsenic, total	ug/L	MW-32	04/01/2025	ND	2.0000		4.0000
Barium, total	ug/L	MW-32	04/11/2018		247.0000		271.0573
Barium, total	ug/L	MW-32	10/16/2018		199.0000		271.0573
Barium, total	ug/L	MW-32	04/18/2019		238.0000		271.0573
Barium, total	ug/L	MW-32	10/16/2019		199.0000		271.0573
Barium, total	ug/L	MW-32	04/06/2020		205.0000		271.0573
Barium, total	ug/L	MW-32	10/13/2020		188.0000		271.0573
Barium, total	ug/L	MW-32	04/12/2021		254.0000		271.0573
Barium, total	ug/L	MW-32	07/01/2021		219.0000		271.0573
Barium, total	ug/L	MW-32	10/06/2021		197.0000		271.0573
Barium, total	ug/L	MW-32	04/14/2022		206.0000		271.0573
Barium, total	ug/L	MW-32	10/25/2022		281.0000	*	271.0573
Barium, total	ug/L	MW-32	04/03/2023		344.0000	*	271.0573
Barium, total	ug/L	MW-32	10/16/2023		460.0000	*	271.0573
Barium, total	ug/L	MW-32	04/22/2024		421.0000	*	271.0573
Barium, total	ug/L	MW-32	10/07/2024		326.0000	*	271.0573
Barium, total	ug/L	MW-32	04/01/2025		444.0000	*	271.0573
Cobalt, total	ug/L	MW-32	01/17/2018		1.7000	*	0.7000
Cobalt, total	ug/L	MW-32	04/11/2018		1.0000	*	0.7000

* - Significantly increased over background.

** - Detect at limit for 100% NDs in background (NPPL only).

*** - Manual exclusion.

ND = Not Detected, Result = detection limit.

Table 8

**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Cobalt, total	ug/L	MW-32	10/16/2018	ND	0.8000		0.7000
Cobalt, total	ug/L	MW-32	04/18/2019		0.8000	*	0.7000
Cobalt, total	ug/L	MW-32	10/16/2019	ND	0.8000		0.7000
Cobalt, total	ug/L	MW-32	04/06/2020		0.7000		0.7000
Cobalt, total	ug/L	MW-32	10/13/2020	ND	0.4000		0.7000
Cobalt, total	ug/L	MW-32	04/12/2021		0.4000		0.7000
Cobalt, total	ug/L	MW-32	10/06/2021	ND	0.4000		0.7000
Cobalt, total	ug/L	MW-32	04/14/2022		0.4000		0.7000
Cobalt, total	ug/L	MW-32	10/25/2022		2.3000	*	0.7000
Cobalt, total	ug/L	MW-32	04/03/2023		0.6000		0.7000
Cobalt, total	ug/L	MW-32	10/16/2023	ND	0.4000		0.7000
Cobalt, total	ug/L	MW-32	04/22/2024		1.4000	*	0.7000
Cobalt, total	ug/L	MW-32	10/07/2024		0.4000		0.7000
Cobalt, total	ug/L	MW-32	04/01/2025		0.9000	*	0.7000
Arsenic, total	ug/L	MW-33	01/17/2018	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-33	07/02/2018	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-33	10/16/2018	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-33	04/18/2019	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-33	10/16/2019	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-33	04/06/2020	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-33	10/13/2020	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-33	04/12/2021	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-33	10/06/2021	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-33	04/14/2022	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-33	10/25/2022	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-33	04/03/2023	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-33	10/16/2023		25.6000	*	4.0000
Arsenic, total	ug/L	MW-33	04/22/2024		27.6000	*	4.0000
Arsenic, total	ug/L	MW-33	04/01/2025	ND	2.0000		4.0000
Cadmium, total	ug/L	MW-33	07/02/2018	ND	0.8000		0.8000
Cadmium, total	ug/L	MW-33	10/16/2018	ND	0.8000		0.8000
Cadmium, total	ug/L	MW-33	04/18/2019	ND	0.8000		0.8000
Cadmium, total	ug/L	MW-33	10/16/2019	ND	0.8000		0.8000
Cadmium, total	ug/L	MW-33	04/06/2020	ND	0.8000		0.8000
Cadmium, total	ug/L	MW-33	10/13/2020	ND	0.8000		0.8000
Cadmium, total	ug/L	MW-33	04/12/2021	ND	0.8000		0.8000
Cadmium, total	ug/L	MW-33	10/06/2021	ND	0.8000		0.8000
Cadmium, total	ug/L	MW-33	04/14/2022	ND	0.8000		0.8000
Cadmium, total	ug/L	MW-33	10/25/2022	ND	0.8000		0.8000
Cadmium, total	ug/L	MW-33	04/03/2023		0.9000	*	0.8000
Cadmium, total	ug/L	MW-33	10/16/2023		6.5000	*	0.8000
Cadmium, total	ug/L	MW-33	04/22/2024		1.8000	*	0.8000
Cadmium, total	ug/L	MW-33	04/01/2025		0.3000		0.8000
Cobalt, total	ug/L	MW-33	07/02/2018	ND	0.8000		0.7000
Cobalt, total	ug/L	MW-33	10/16/2018	ND	0.8000		0.7000
Cobalt, total	ug/L	MW-33	04/18/2019		6.2000	*	0.7000
Cobalt, total	ug/L	MW-33	10/16/2019	ND	0.8000		0.7000
Cobalt, total	ug/L	MW-33	04/06/2020		2.7000	*	0.7000
Cobalt, total	ug/L	MW-33	07/01/2020	ND	0.4000		0.7000
Cobalt, total	ug/L	MW-33	10/13/2020	ND	0.4000		0.7000
Cobalt, total	ug/L	MW-33	04/12/2021	ND	0.4000		0.7000
Cobalt, total	ug/L	MW-33	10/06/2021		0.5000		0.7000
Cobalt, total	ug/L	MW-33	04/14/2022		1.9000	*	0.7000
Cobalt, total	ug/L	MW-33	07/13/2022		2.0000	*	0.7000
Cobalt, total	ug/L	MW-33	10/25/2022		16.1000	*	0.7000
Cobalt, total	ug/L	MW-33	04/03/2023		1.4000	*	0.7000
Cobalt, total	ug/L	MW-33	10/16/2023		149.0000	*	0.7000
Cobalt, total	ug/L	MW-33	04/22/2024		86.3000	*	0.7000
Cobalt, total	ug/L	MW-33	04/01/2025		18.7000	*	0.7000
Nickel, total	ug/L	MW-33	07/02/2018	ND	4.0000		11.6000
Nickel, total	ug/L	MW-33	10/16/2018	ND	4.0000		11.6000
Nickel, total	ug/L	MW-33	04/18/2019		7.5000		11.6000
Nickel, total	ug/L	MW-33	10/16/2019	ND	4.0000		11.6000
Nickel, total	ug/L	MW-33	04/06/2020		4.2000		11.6000
Nickel, total	ug/L	MW-33	10/13/2020	ND	4.0000		11.6000
Nickel, total	ug/L	MW-33	04/12/2021	ND	4.0000		11.6000
Nickel, total	ug/L	MW-33	10/06/2021	ND	4.0000		11.6000
Nickel, total	ug/L	MW-33	04/14/2022	ND	4.0000		11.6000
Nickel, total	ug/L	MW-33	10/25/2022		5.1000		11.6000
Nickel, total	ug/L	MW-33	04/03/2023		5.8000		11.6000
Nickel, total	ug/L	MW-33	10/16/2023		46.9000	*	11.6000

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**Historical Downgradient Data for Constituent-Well Combinations
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Constituent	Units	Well	Date		Result	Pred. Limit
Nickel, total	ug/L	MW-33	04/22/2024		112.0000 *	11.6000
Nickel, total	ug/L	MW-33	04/01/2025		15.0000 *	11.6000
Arsenic, total	ug/L	MW-9	10/17/2007		15.0000 *	4.0000
Arsenic, total	ug/L	MW-9	01/11/2008		12.7000 *	4.0000
Arsenic, total	ug/L	MW-9	04/10/2008		4.4300 *	4.0000
Arsenic, total	ug/L	MW-9	07/17/2008		9.9300 *	4.0000
Arsenic, total	ug/L	MW-9	10/21/2008		8.0200 *	4.0000
Arsenic, total	ug/L	MW-9	04/13/2009		4.5200 *	4.0000
Arsenic, total	ug/L	MW-9	10/14/2009		3.4000	4.0000
Arsenic, total	ug/L	MW-9	04/20/2010		4.3400 *	4.0000
Arsenic, total	ug/L	MW-9	10/13/2010		6.3100 *	4.0000
Arsenic, total	ug/L	MW-9	04/14/2011		5.2000 *	4.0000
Arsenic, total	ug/L	MW-9	10/11/2011		15.9000 *	4.0000
Arsenic, total	ug/L	MW-9	04/18/2012		6.6600 *	4.0000
Arsenic, total	ug/L	MW-9	10/11/2012		327.0000 *	4.0000
Arsenic, total	ug/L	MW-9	04/23/2013	ND	1.0000	4.0000
Arsenic, total	ug/L	MW-9	10/29/2013		4.5300 *	4.0000
Arsenic, total	ug/L	MW-9	04/23/2014		8.2700 *	4.0000
Arsenic, total	ug/L	MW-9	10/24/2014		3.3400	4.0000
Arsenic, total	ug/L	MW-9	10/20/2015	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-9	04/11/2016		31.9000 *	4.0000
Arsenic, total	ug/L	MW-9	10/12/2016	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-9	04/12/2017	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-9	10/25/2017	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-9	04/11/2018		4.1000 *	4.0000
Arsenic, total	ug/L	MW-9	10/16/2018	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-9	04/18/2019		14.1000 *	4.0000
Arsenic, total	ug/L	MW-9	10/16/2019	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-9	04/06/2020		16.8000 *	4.0000
Arsenic, total	ug/L	MW-9	10/14/2020	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-9	04/12/2021		11.8000 *	4.0000
Arsenic, total	ug/L	MW-9	10/06/2021	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-9	04/15/2022		10.7000 *	4.0000
Arsenic, total	ug/L	MW-9	10/25/2022		5.1000 *	4.0000
Arsenic, total	ug/L	MW-9	04/03/2023		4.5000 *	4.0000
Arsenic, total	ug/L	MW-9	10/16/2023		6.1000 *	4.0000
Arsenic, total	ug/L	MW-9	04/22/2024	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-9	10/07/2024		5.1000 *	4.0000
Arsenic, total	ug/L	MW-9	04/01/2025		5.9000 *	4.0000
Barium, total	ug/L	MW-9	10/17/2007		416.0000 *	271.0573
Barium, total	ug/L	MW-9	01/11/2008		430.0000 *	271.0573
Barium, total	ug/L	MW-9	04/10/2008		421.0000 *	271.0573
Barium, total	ug/L	MW-9	07/17/2008		432.0000 *	271.0573
Barium, total	ug/L	MW-9	10/21/2008		733.0000 *	271.0573
Barium, total	ug/L	MW-9	04/13/2009		420.0000 *	271.0573
Barium, total	ug/L	MW-9	10/14/2009		344.0000 *	271.0573
Barium, total	ug/L	MW-9	04/20/2010		352.0000 *	271.0573
Barium, total	ug/L	MW-9	10/13/2010		353.0000 *	271.0573
Barium, total	ug/L	MW-9	04/14/2011		310.0000 *	271.0573
Barium, total	ug/L	MW-9	10/11/2011		418.0000 *	271.0573
Barium, total	ug/L	MW-9	04/18/2012		373.0000 *	271.0573
Barium, total	ug/L	MW-9	10/11/2012		3370.0000 *	271.0573
Barium, total	ug/L	MW-9	04/23/2013		415.0000 *	271.0573
Barium, total	ug/L	MW-9	10/29/2013		548.0000 *	271.0573
Barium, total	ug/L	MW-9	04/23/2014		525.0000 *	271.0573
Barium, total	ug/L	MW-9	10/24/2014		435.0000 *	271.0573
Barium, total	ug/L	MW-9	10/20/2015		389.0000 *	271.0573
Barium, total	ug/L	MW-9	04/11/2016		608.0000 *	271.0573
Barium, total	ug/L	MW-9	10/12/2016		296.0000 *	271.0573
Barium, total	ug/L	MW-9	04/12/2017		346.0000 *	271.0573
Barium, total	ug/L	MW-9	10/25/2017		304.0000 *	271.0573
Barium, total	ug/L	MW-9	04/11/2018		303.0000 *	271.0573
Barium, total	ug/L	MW-9	10/16/2018		605.0000 *	271.0573
Barium, total	ug/L	MW-9	04/18/2019		432.0000 *	271.0573
Barium, total	ug/L	MW-9	10/16/2019		270.0000	271.0573
Barium, total	ug/L	MW-9	04/06/2020		474.0000 *	271.0573
Barium, total	ug/L	MW-9	10/14/2020		281.0000 *	271.0573
Barium, total	ug/L	MW-9	04/12/2021		369.0000 *	271.0573
Barium, total	ug/L	MW-9	10/06/2021		285.0000 *	271.0573
Barium, total	ug/L	MW-9	04/15/2022		379.0000 *	271.0573
Barium, total	ug/L	MW-9	10/25/2022		353.0000 *	271.0573

* - Significantly increased over background.

** - Detect at limit for 100% NDs in background (NPPL only).

*** - Manual exclusion.

ND = Not Detected, Result = detection limit.

Table 8

**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Barium, total	ug/L	MW-9	04/03/2023		334.0000 *	271.0573
Barium, total	ug/L	MW-9	10/16/2023		435.0000 *	271.0573
Barium, total	ug/L	MW-9	04/22/2024		394.0000 *	271.0573
Barium, total	ug/L	MW-9	10/07/2024		519.0000 *	271.0573
Barium, total	ug/L	MW-9	04/01/2025		559.0000 *	271.0573
Cobalt, total	ug/L	MW-9	10/17/2007	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	01/11/2008	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	04/10/2008	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	07/17/2008	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	10/21/2008	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	04/13/2009	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	10/14/2009	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	04/20/2010	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	10/13/2010	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	04/14/2011	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	10/11/2011	ND	10.0000	0.7000
Cobalt, total	ug/L	MW-9	04/18/2012	ND	10.0000	0.7000
Cobalt, total	ug/L	MW-9	10/11/2012	ND	10.0000	0.7000
Cobalt, total	ug/L	MW-9	04/23/2013	ND	10.0000	0.7000
Cobalt, total	ug/L	MW-9	10/29/2013		2.8700 *	0.7000
Arsenic, total	ug/L	MW-24	02/18/2011		16.2000 *	4.0000
Arsenic, total	ug/L	MW-24	04/14/2011		15.8000 *	4.0000
Arsenic, total	ug/L	MW-24	06/21/2011		16.0000 *	4.0000
Arsenic, total	ug/L	MW-24	12/29/2011		11.6000 *	4.0000
Arsenic, total	ug/L	MW-24	05/05/2014		11.1000 *	4.0000
Arsenic, total	ug/L	MW-24	10/29/2014		13.5000 *	4.0000
Arsenic, total	ug/L	MW-24	04/28/2015		10.7000 *	4.0000
Arsenic, total	ug/L	MW-24	10/21/2015		12.4000 *	4.0000
Arsenic, total	ug/L	MW-24	04/11/2016	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	10/11/2016		4.5000 *	4.0000
Arsenic, total	ug/L	MW-24	04/12/2017	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	10/26/2017		18.6000 *	4.0000
Arsenic, total	ug/L	MW-24	04/11/2018		6.2000 *	4.0000
Arsenic, total	ug/L	MW-24	10/16/2018	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	04/18/2019	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	10/15/2019	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	04/06/2020	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	10/13/2020		13.4000 *	4.0000
Arsenic, total	ug/L	MW-24	04/12/2021	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	10/06/2021		12.1000 *	4.0000
Arsenic, total	ug/L	MW-24	04/14/2022	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	10/25/2022		16.0000 *	4.0000
Arsenic, total	ug/L	MW-24	04/03/2023	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	04/22/2024		10.8000 *	4.0000
Arsenic, total	ug/L	MW-24	04/01/2025		4.8000 *	4.0000
Barium, total	ug/L	MW-24	02/18/2011		461.0000 *	271.0573
Barium, total	ug/L	MW-24	04/14/2011		476.0000 *	271.0573
Barium, total	ug/L	MW-24	06/21/2011		413.0000 *	271.0573
Barium, total	ug/L	MW-24	12/29/2011		529.0000 *	271.0573
Barium, total	ug/L	MW-24	05/05/2014		507.0000 *	271.0573
Barium, total	ug/L	MW-24	10/29/2014		532.0000 *	271.0573
Barium, total	ug/L	MW-24	04/28/2015		559.0000 *	271.0573
Barium, total	ug/L	MW-24	10/21/2015		517.0000 *	271.0573
Barium, total	ug/L	MW-24	04/11/2016		505.0000 *	271.0573
Barium, total	ug/L	MW-24	10/11/2016		490.0000 *	271.0573
Barium, total	ug/L	MW-24	04/12/2017		434.0000 *	271.0573
Barium, total	ug/L	MW-24	10/26/2017		519.0000 *	271.0573
Barium, total	ug/L	MW-24	04/11/2018		398.0000 *	271.0573
Barium, total	ug/L	MW-24	10/16/2018		371.0000 *	271.0573
Barium, total	ug/L	MW-24	04/18/2019		371.0000 *	271.0573
Barium, total	ug/L	MW-24	10/15/2019		446.0000 *	271.0573
Barium, total	ug/L	MW-24	04/06/2020		531.0000 *	271.0573
Barium, total	ug/L	MW-24	10/13/2020		491.0000 *	271.0573
Barium, total	ug/L	MW-24	04/12/2021		337.0000 *	271.0573
Barium, total	ug/L	MW-24	10/06/2021		466.0000 *	271.0573
Barium, total	ug/L	MW-24	04/14/2022		350.0000 *	271.0573
Barium, total	ug/L	MW-24	10/25/2022		529.0000 *	271.0573
Barium, total	ug/L	MW-24	04/03/2023		389.0000 *	271.0573
Barium, total	ug/L	MW-24	04/22/2024		490.0000 *	271.0573
Barium, total	ug/L	MW-24	04/01/2025		522.0000 *	271.0573
Cobalt, total	ug/L	MW-24	02/18/2011	ND	20.0000	0.7000

* - Significantly increased over background.

** - Detect at limit for 100% NDs in background (NPPL only).

*** - Manual exclusion.

ND = Not Detected, Result = detection limit.

Table 8

**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Cobalt, total	ug/L	MW-24	04/14/2011	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-24	06/21/2011	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-24	12/29/2011	ND	10.0000	0.7000
Cobalt, total	ug/L	MW-24	05/05/2014		2.9300 *	0.7000
Cobalt, total	ug/L	MW-24	10/29/2014		2.7100 *	0.7000
Cobalt, total	ug/L	MW-24	04/28/2015		3.4700 *	0.7000
Cobalt, total	ug/L	MW-24	10/21/2015		4.2000 *	0.7000
Cobalt, total	ug/L	MW-24	04/11/2016		4.2000 *	0.7000
Cobalt, total	ug/L	MW-24	10/11/2016		2.8000 *	0.7000
Cobalt, total	ug/L	MW-24	04/12/2017		3.1000 *	0.7000
Cobalt, total	ug/L	MW-24	10/26/2017		2.4000 *	0.7000
Cobalt, total	ug/L	MW-24	04/11/2018		1.8000 *	0.7000
Cobalt, total	ug/L	MW-24	10/16/2018		1.0000 *	0.7000
Cobalt, total	ug/L	MW-24	04/18/2019		2.2000 *	0.7000
Cobalt, total	ug/L	MW-24	10/15/2019		1.2000 *	0.7000
Cobalt, total	ug/L	MW-24	04/06/2020		2.5000 *	0.7000
Cobalt, total	ug/L	MW-24	10/13/2020		1.4000 *	0.7000
Cobalt, total	ug/L	MW-24	04/12/2021		1.8000 *	0.7000
Cobalt, total	ug/L	MW-24	10/06/2021		1.5000 *	0.7000
Cobalt, total	ug/L	MW-24	04/14/2022		1.5000 *	0.7000
Cobalt, total	ug/L	MW-24	10/25/2022		0.8000 *	0.7000
Cobalt, total	ug/L	MW-24	04/03/2023		0.8000 *	0.7000
Cobalt, total	ug/L	MW-24	04/22/2024		2.1000 *	0.7000
Cobalt, total	ug/L	MW-24	04/01/2025		1.7000 *	0.7000
Nickel, total	ug/L	MW-24	02/18/2011	ND	50.0000	11.6000
Nickel, total	ug/L	MW-24	04/14/2011	ND	50.0000	11.6000
Nickel, total	ug/L	MW-24	06/21/2011	ND	50.0000	11.6000
Nickel, total	ug/L	MW-24	12/29/2011	ND	10.0000	11.6000
Nickel, total	ug/L	MW-24	05/05/2014		25.0000 *	11.6000
Nickel, total	ug/L	MW-24	10/29/2014		25.3000 *	11.6000
Nickel, total	ug/L	MW-24	04/28/2015		33.6000 *	11.6000
Nickel, total	ug/L	MW-24	10/21/2015		32.0000 *	11.6000
Nickel, total	ug/L	MW-24	04/11/2016		26.1000 *	11.6000
Nickel, total	ug/L	MW-24	10/11/2016		27.9000 *	11.6000
Nickel, total	ug/L	MW-24	04/12/2017		23.1000 *	11.6000
Nickel, total	ug/L	MW-24	10/26/2017		31.6000 *	11.6000
Nickel, total	ug/L	MW-24	04/11/2018		25.9000 *	11.6000
Nickel, total	ug/L	MW-24	10/16/2018		18.3000 *	11.6000
Nickel, total	ug/L	MW-24	04/18/2019		18.8000 *	11.6000
Nickel, total	ug/L	MW-24	10/15/2019		29.0000 *	11.6000
Nickel, total	ug/L	MW-24	04/06/2020		32.5000 *	11.6000
Nickel, total	ug/L	MW-24	10/13/2020		35.0000 *	11.6000
Nickel, total	ug/L	MW-24	04/12/2021		21.1000 *	11.6000
Nickel, total	ug/L	MW-24	10/06/2021		35.5000 *	11.6000
Nickel, total	ug/L	MW-24	04/14/2022		24.5000 *	11.6000
Nickel, total	ug/L	MW-24	10/25/2022		40.0000 *	11.6000
Nickel, total	ug/L	MW-24	04/03/2023		27.6000 *	11.6000
Nickel, total	ug/L	MW-24	04/22/2024		38.0000 *	11.6000
Cobalt, total	ug/L	MW-9	04/23/2014		4.1300 *	0.7000
Cobalt, total	ug/L	MW-9	10/24/2014		1.6500 *	0.7000
Cobalt, total	ug/L	MW-9	10/20/2015		0.9000 *	0.7000
Cobalt, total	ug/L	MW-9	04/11/2016		1.3000 *	0.7000
Cobalt, total	ug/L	MW-9	10/12/2016	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-9	04/12/2017		1.1000 *	0.7000
Cobalt, total	ug/L	MW-9	10/25/2017	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-9	04/11/2018		1.0000 *	0.7000
Cobalt, total	ug/L	MW-9	10/16/2018	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-9	04/18/2019		0.9000 *	0.7000
Cobalt, total	ug/L	MW-9	10/16/2019	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-9	04/06/2020		0.9000 *	0.7000
Cobalt, total	ug/L	MW-9	10/14/2020		0.5000	0.7000
Cobalt, total	ug/L	MW-9	04/12/2021		1.0000 *	0.7000
Cobalt, total	ug/L	MW-9	10/06/2021		0.6000	0.7000
Cobalt, total	ug/L	MW-9	04/15/2022		1.5000 *	0.7000
Cobalt, total	ug/L	MW-9	10/25/2022		0.7000	0.7000
Cobalt, total	ug/L	MW-9	04/03/2023		1.1000 *	0.7000
Cobalt, total	ug/L	MW-9	10/16/2023		1.7000 *	0.7000
Cobalt, total	ug/L	MW-9	04/22/2024		1.6000 *	0.7000
Cobalt, total	ug/L	MW-9	10/07/2024		1.7000 *	0.7000
Cobalt, total	ug/L	MW-9	04/01/2025		1.8000 *	0.7000

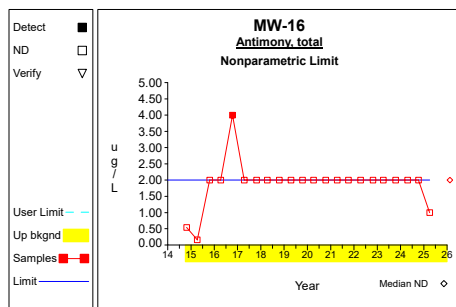
* - Significantly increased over background.

** - Detect at limit for 100% NDs in background (NPPL only).

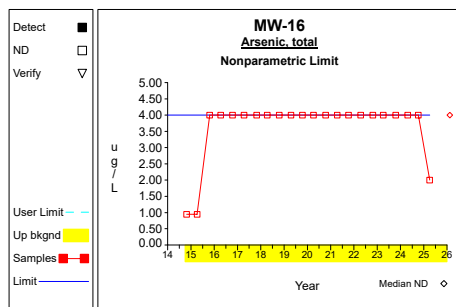
*** - Manual exclusion.

ND = Not Detected, Result = detection limit.

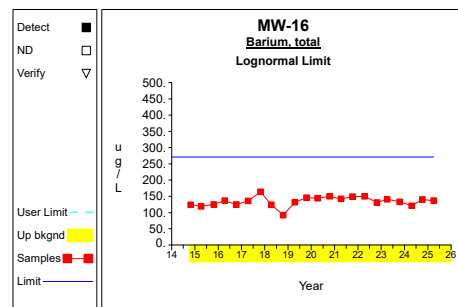
Up vs. Down Prediction Limits



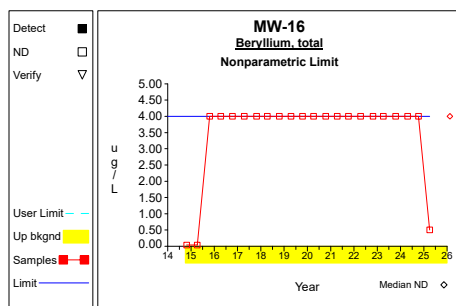
Graph 1



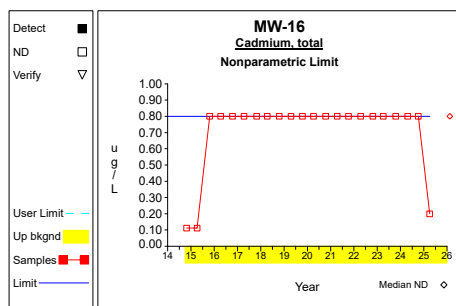
Graph 2



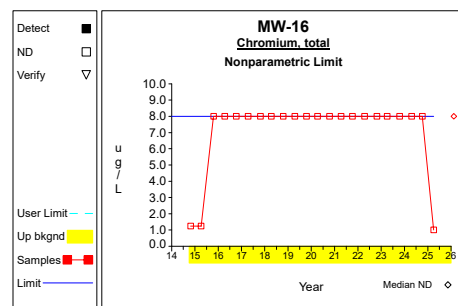
Graph 3



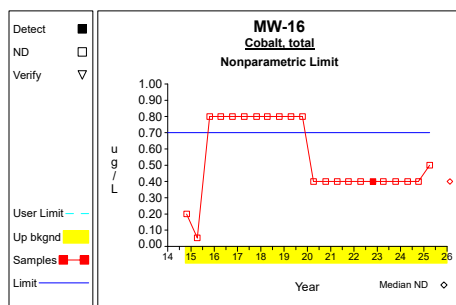
Graph 4



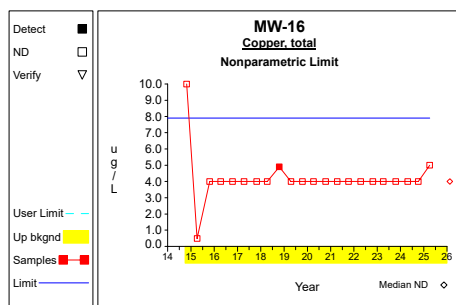
Graph 5



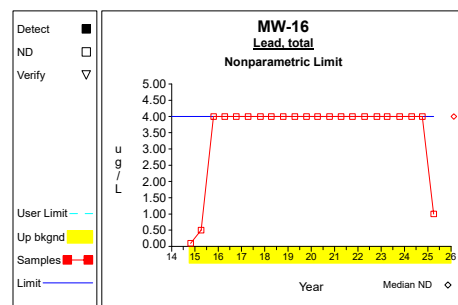
Graph 6



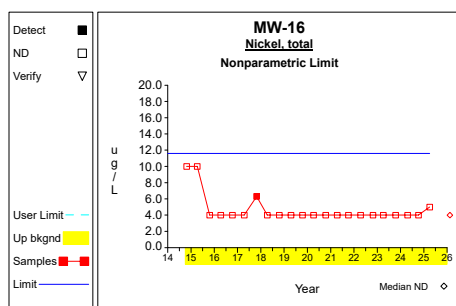
Graph 7



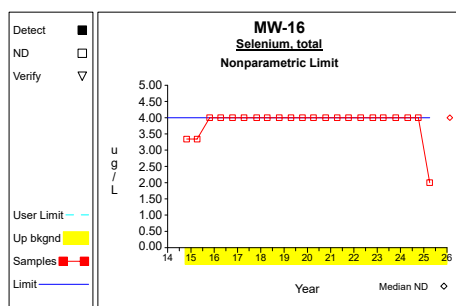
Graph 8



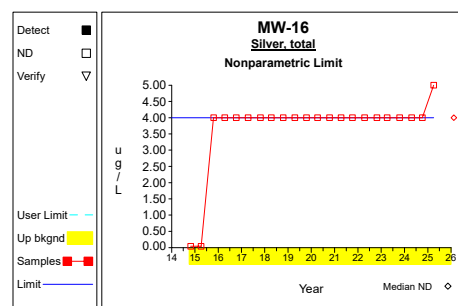
Graph 9



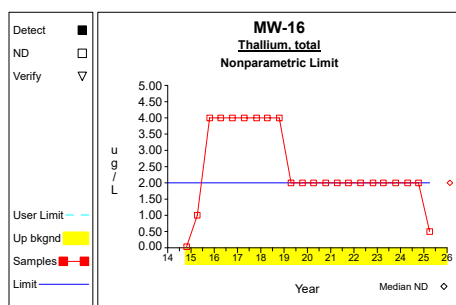
Graph 10



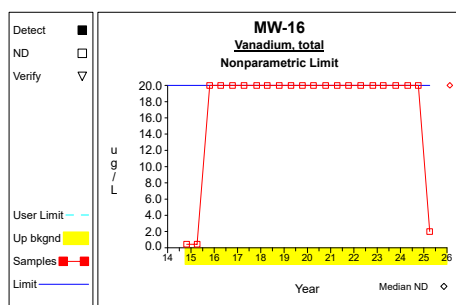
Graph 11



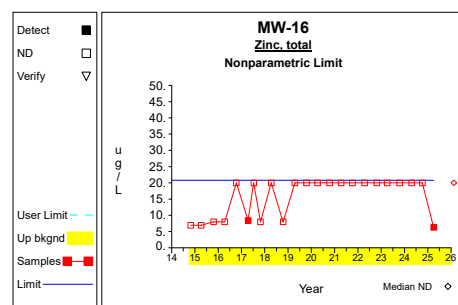
Graph 12



Graph 13

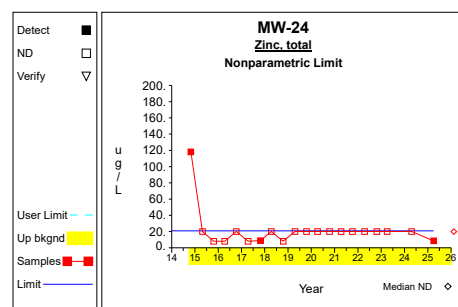
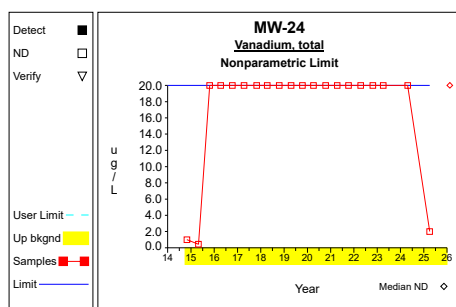
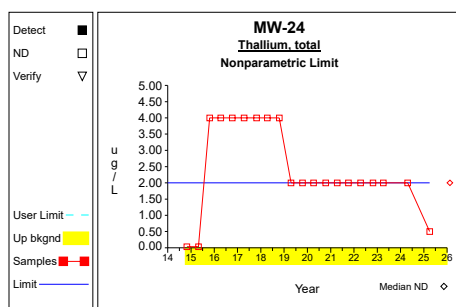
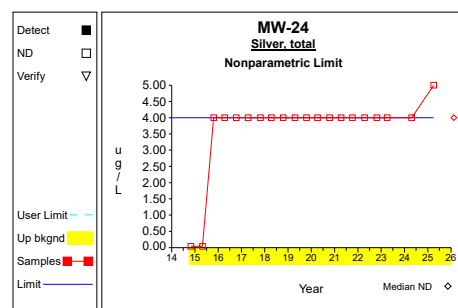
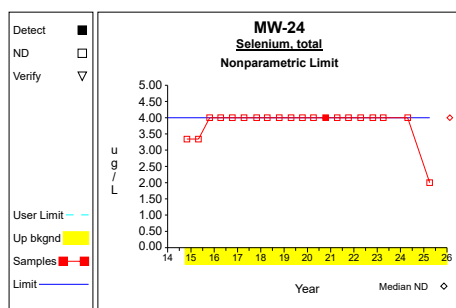
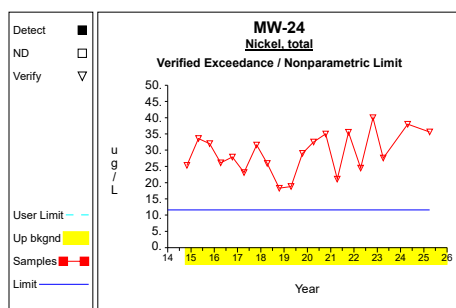
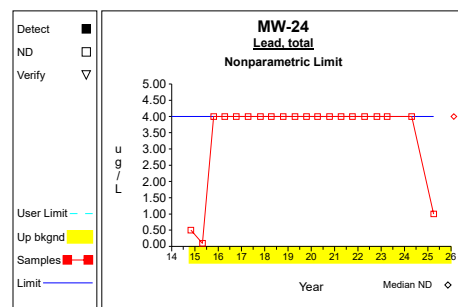
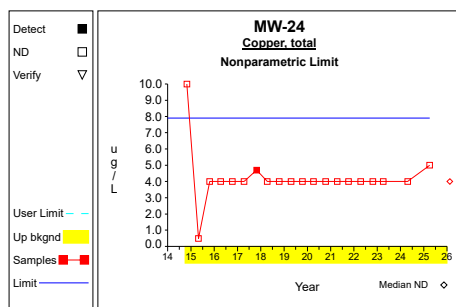
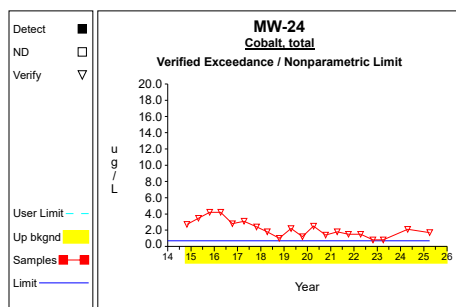
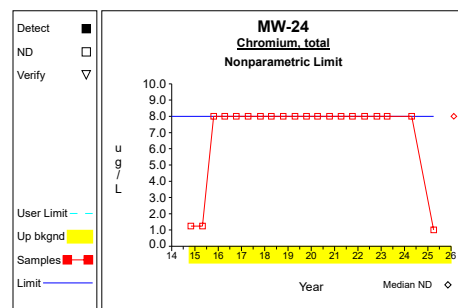
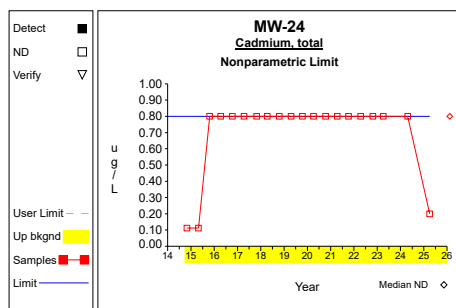
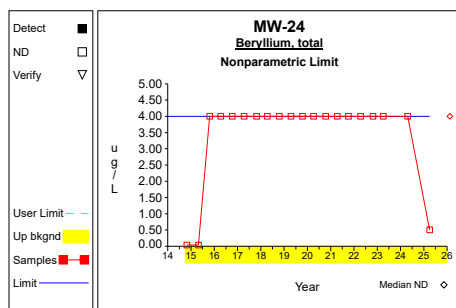
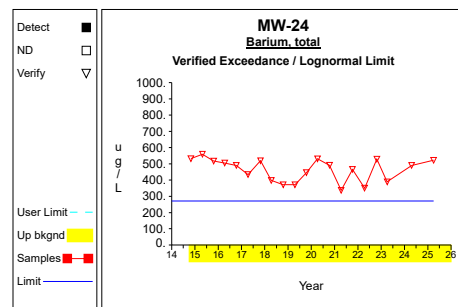
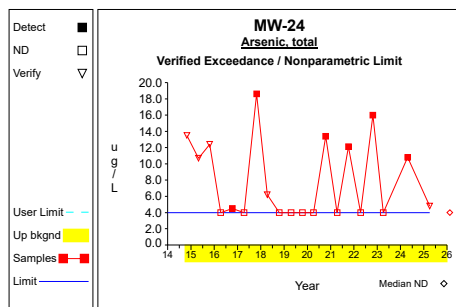
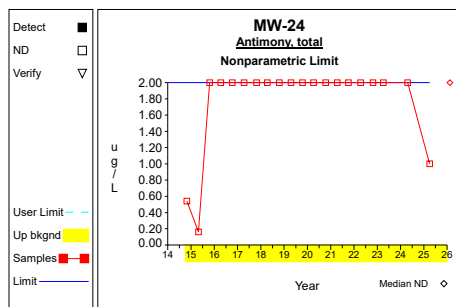


Graph 14

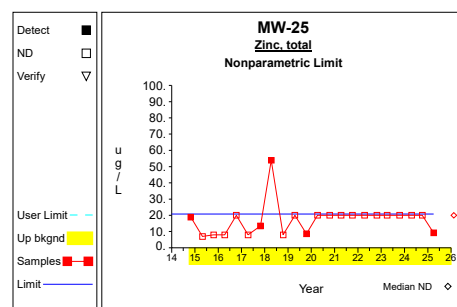
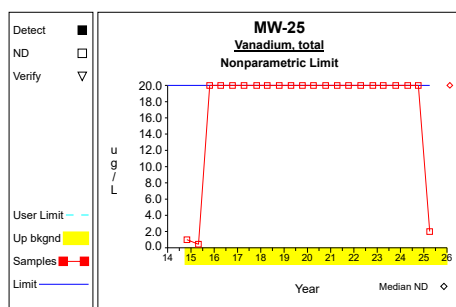
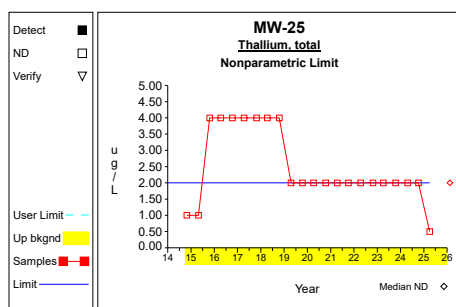
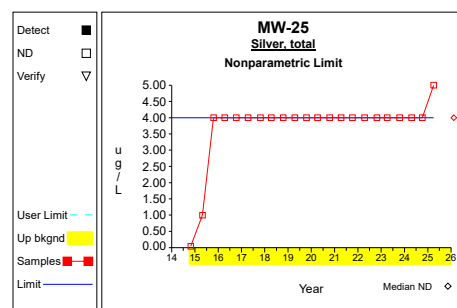
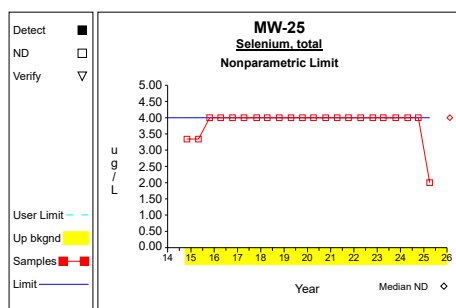
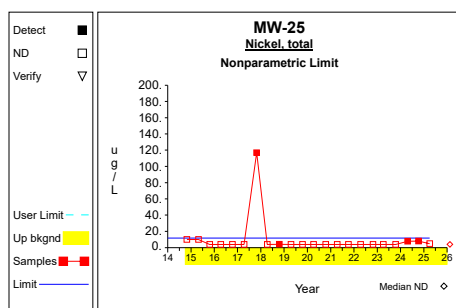
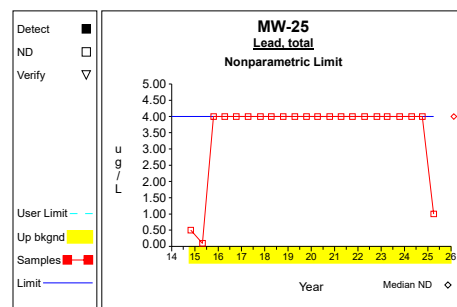
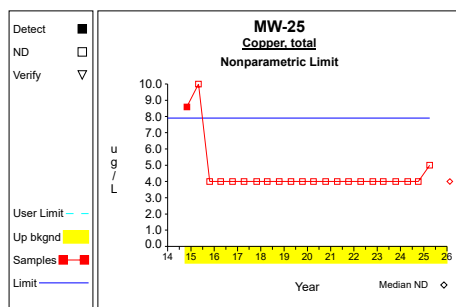
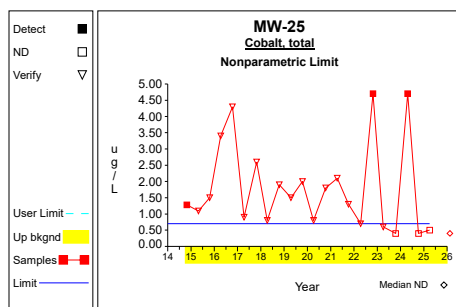
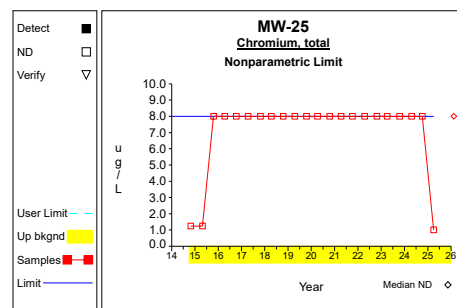
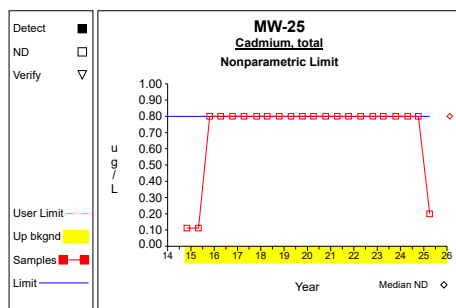
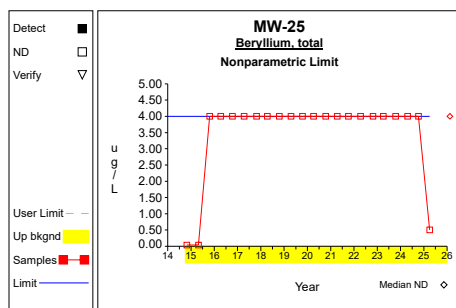
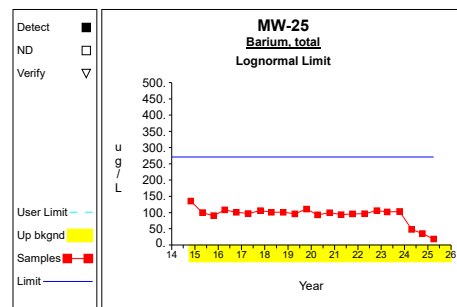
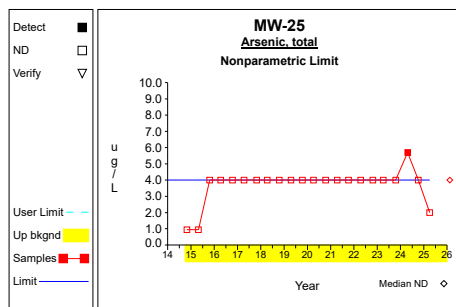
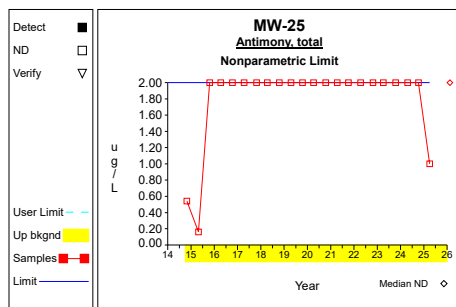


Graph 15

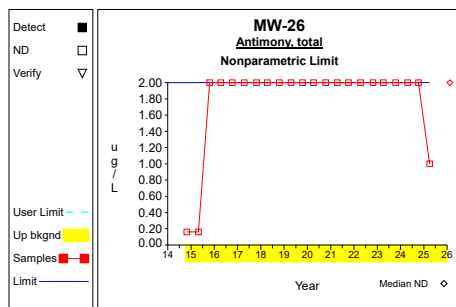
Up vs. Down Prediction Limits



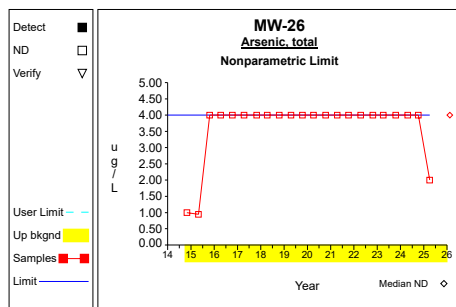
Up vs. Down Prediction Limits



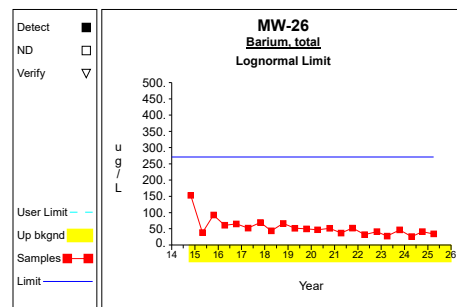
Up vs. Down Prediction Limits



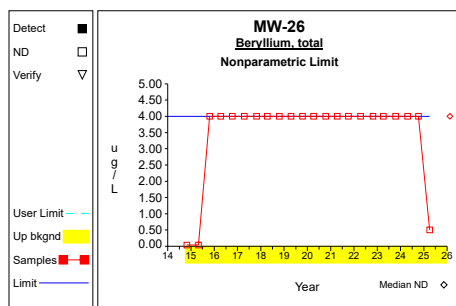
Graph 46



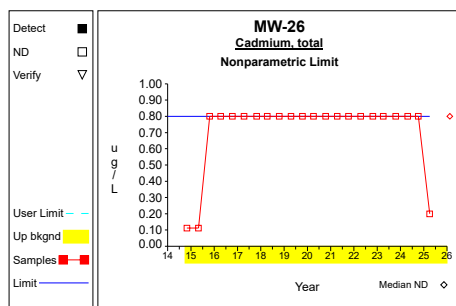
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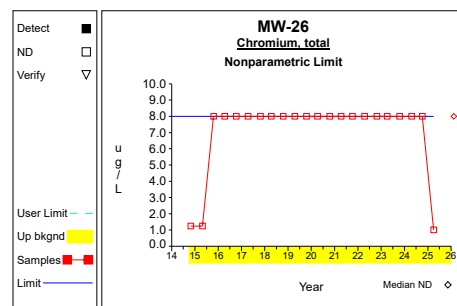
Graph 48



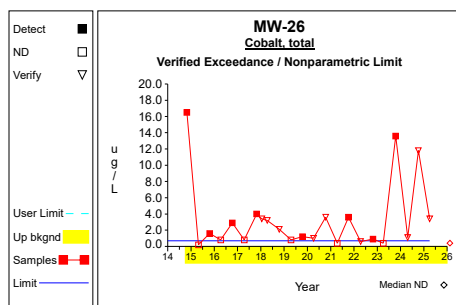
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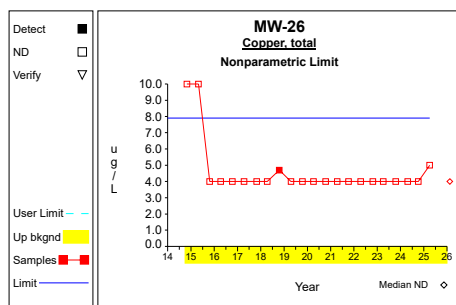
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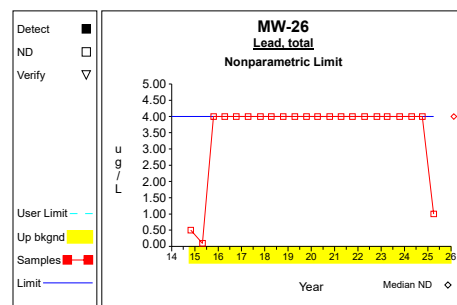
Graph 51



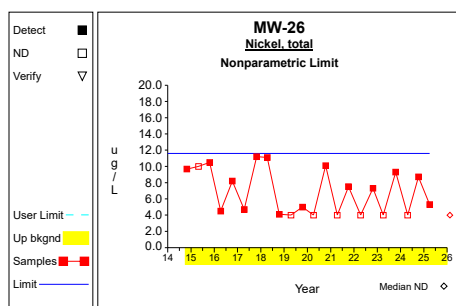
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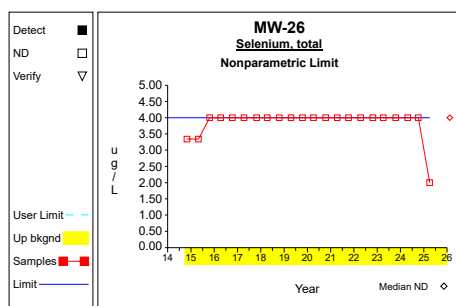
Graph 53



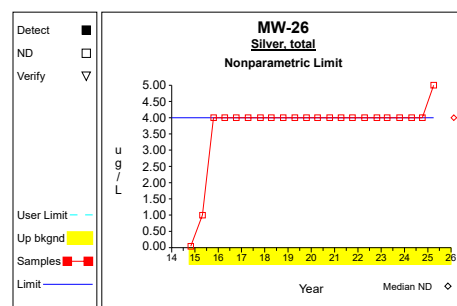
Graph 54



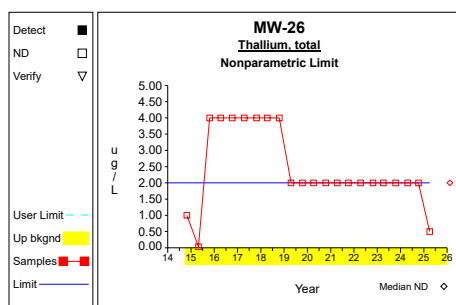
Graph 55



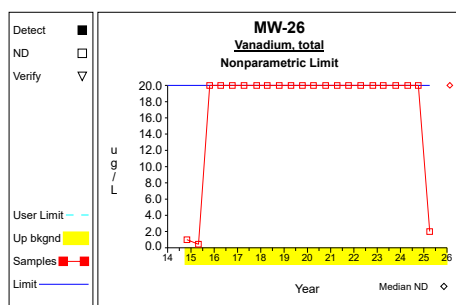
Graph 56



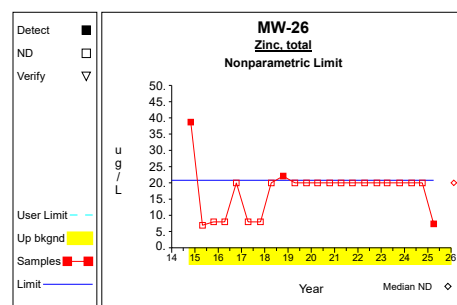
Graph 57



Graph 58

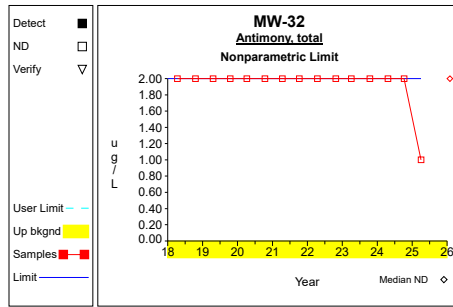


Graph 59

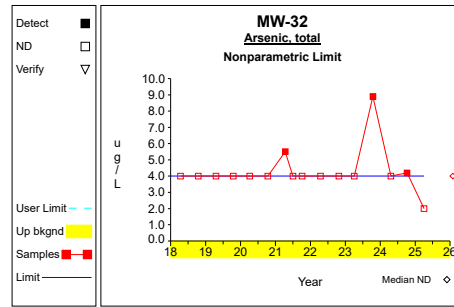


Graph 60

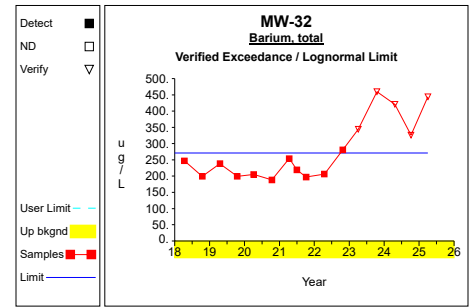
Up vs. Down Prediction Limits



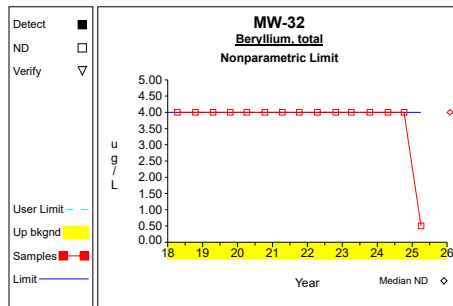
Graph 61



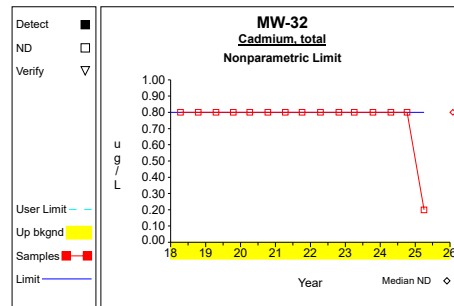
Graph 62



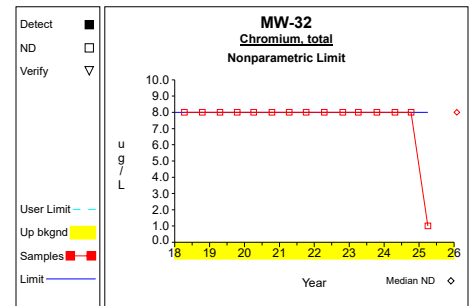
Graph 63



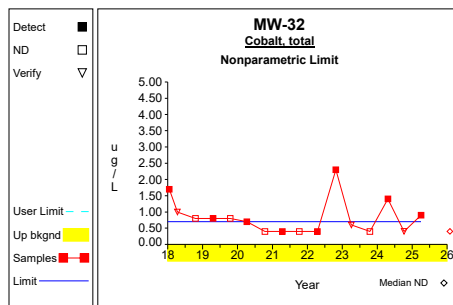
Graph 64



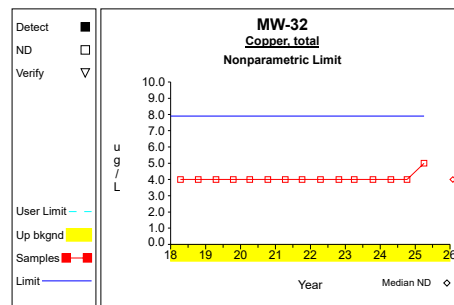
Graph 65



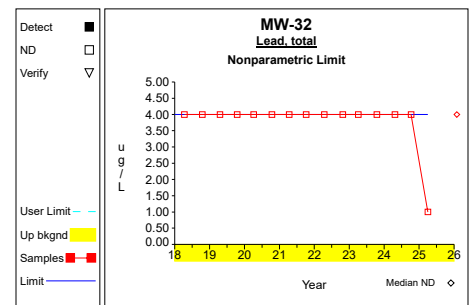
Graph 66



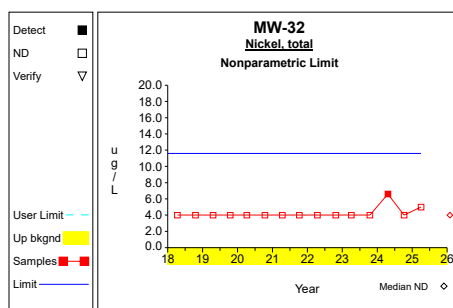
Graph 67



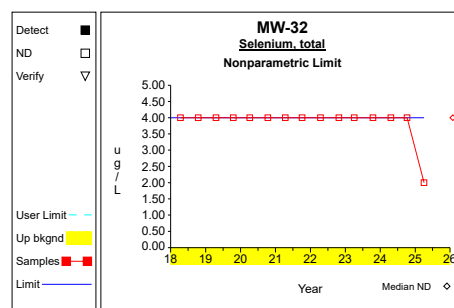
Graph 68



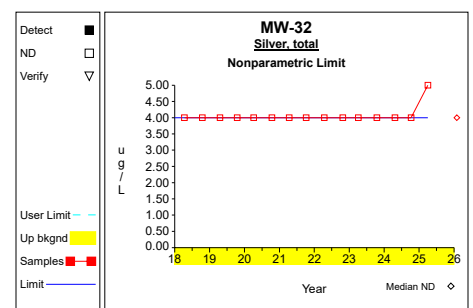
Graph 69



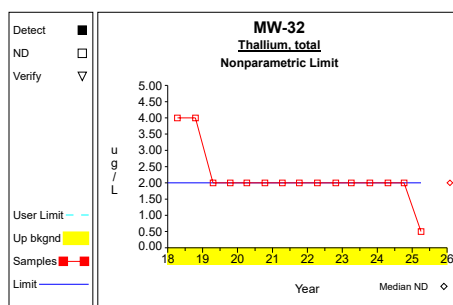
Graph 70



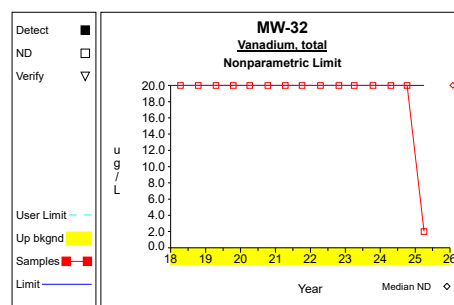
Graph 71



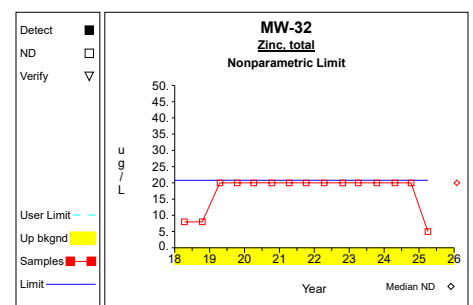
Graph 72



Graph 73



Graph 74

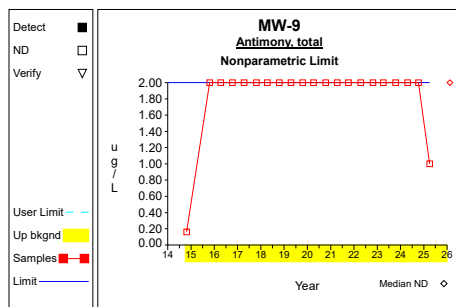


Graph 75

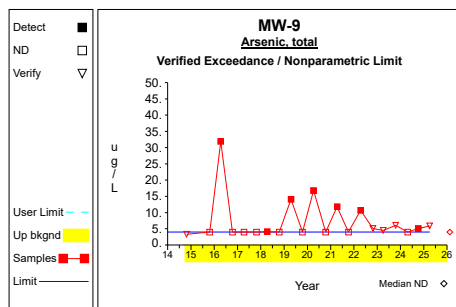
The figure displays 12 individual graphs, each representing a different chemical element. Each graph has a title 'MW-33' and a subtitle indicating the element and the limit type (e.g., 'Antimony, total', 'Nonparametric Limit'). The y-axis is labeled 'ug / L' and the x-axis is labeled 'Year' with values from 18 to 26. A legend on the left of each graph defines the symbols: Detect (black square), ND (open square), Verify (inverted triangle), User Limit (dashed line), Up bkgnd (yellow bar), Samples (red square), and Limit (blue line). The data points are connected by a red line, showing a significant peak in year 24 for most elements.

Graph	Element	Limit Type	Peak Year	Peak Value (ug/L)
Graph 76	Antimony, total	Nonparametric Limit	24	2.8
Graph 77	Arsenic, total	Nonparametric Limit	24	28
Graph 78	Barium, total	Lognormal Limit	24	950
Graph 79	Beryllium, total	Nonparametric Limit	24	4.0
Graph 80	Cadmium, total	Nonparametric Limit	24	7.0
Graph 81	Chromium, total	Nonparametric Limit	24	8.0
Graph 82	Cobalt, total	Verified Exceedance / Nonparametric Limit	24	150
Graph 83	Copper, total	Nonparametric Limit	24	8.0
Graph 84	Lead, total	Nonparametric Limit	24	4.0
Graph 85	Nickel, total	Verified Exceedance / Nonparametric Limit	24	120
Graph 86	Selenium, total	Nonparametric Limit	24	4.0
Graph 87	Silver, total	Nonparametric Limit	24	4.0
Graph 88	Thallium, total	Nonparametric Limit	24	2.0
Graph 89	Vanadium, total	Nonparametric Limit	24	90
Graph 90	Zinc, total	Nonparametric Limit	24	20

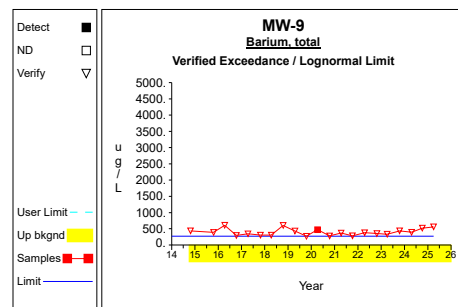
Up vs. Down Prediction Limits



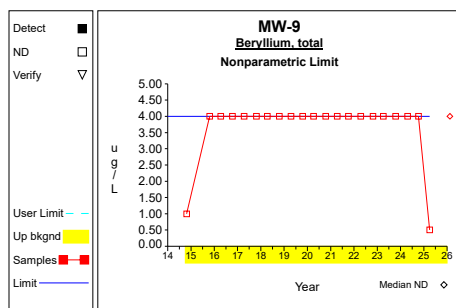
Graph 91



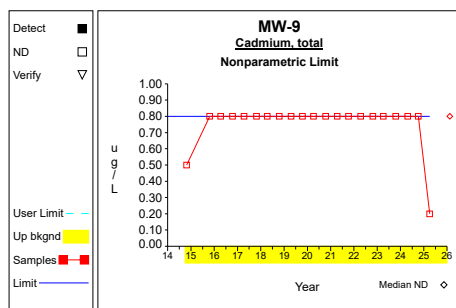
Graph 92



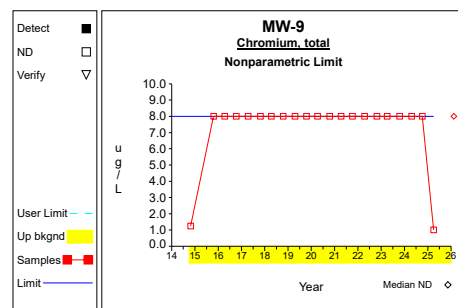
Graph 93



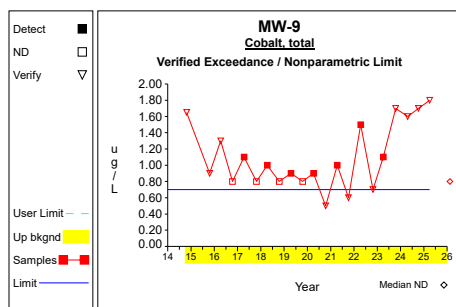
Graph 94



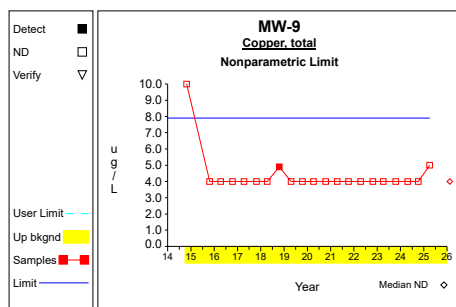
Graph 95



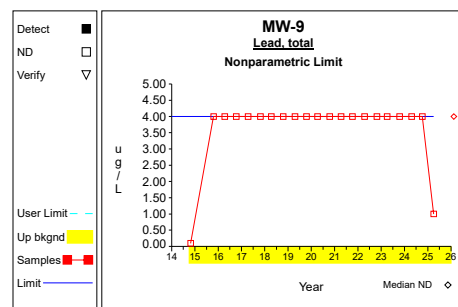
Graph 96



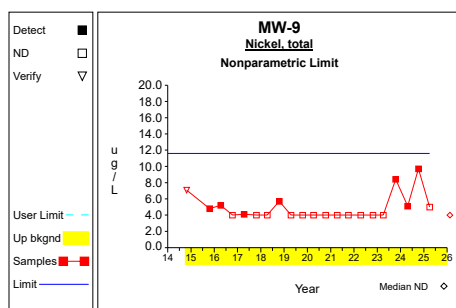
Graph 97



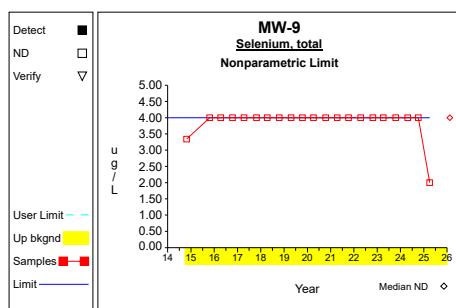
Graph 98



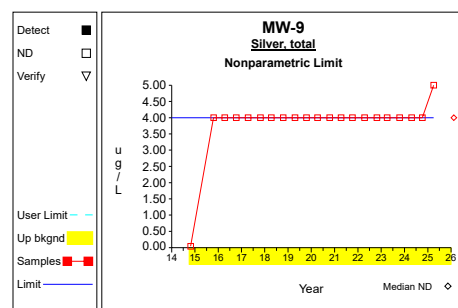
Graph 99



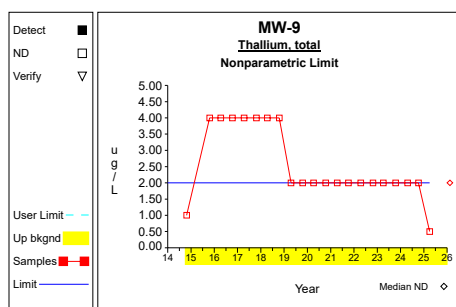
Graph 100



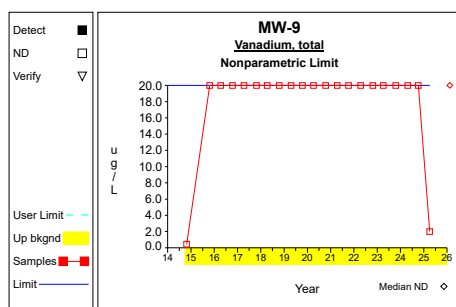
Graph 101



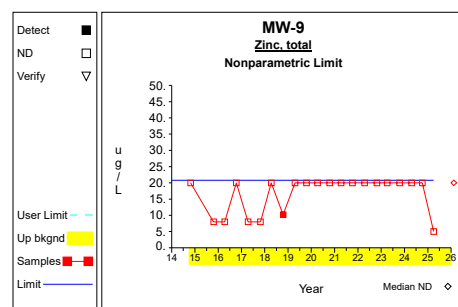
Graph 102



Graph 103

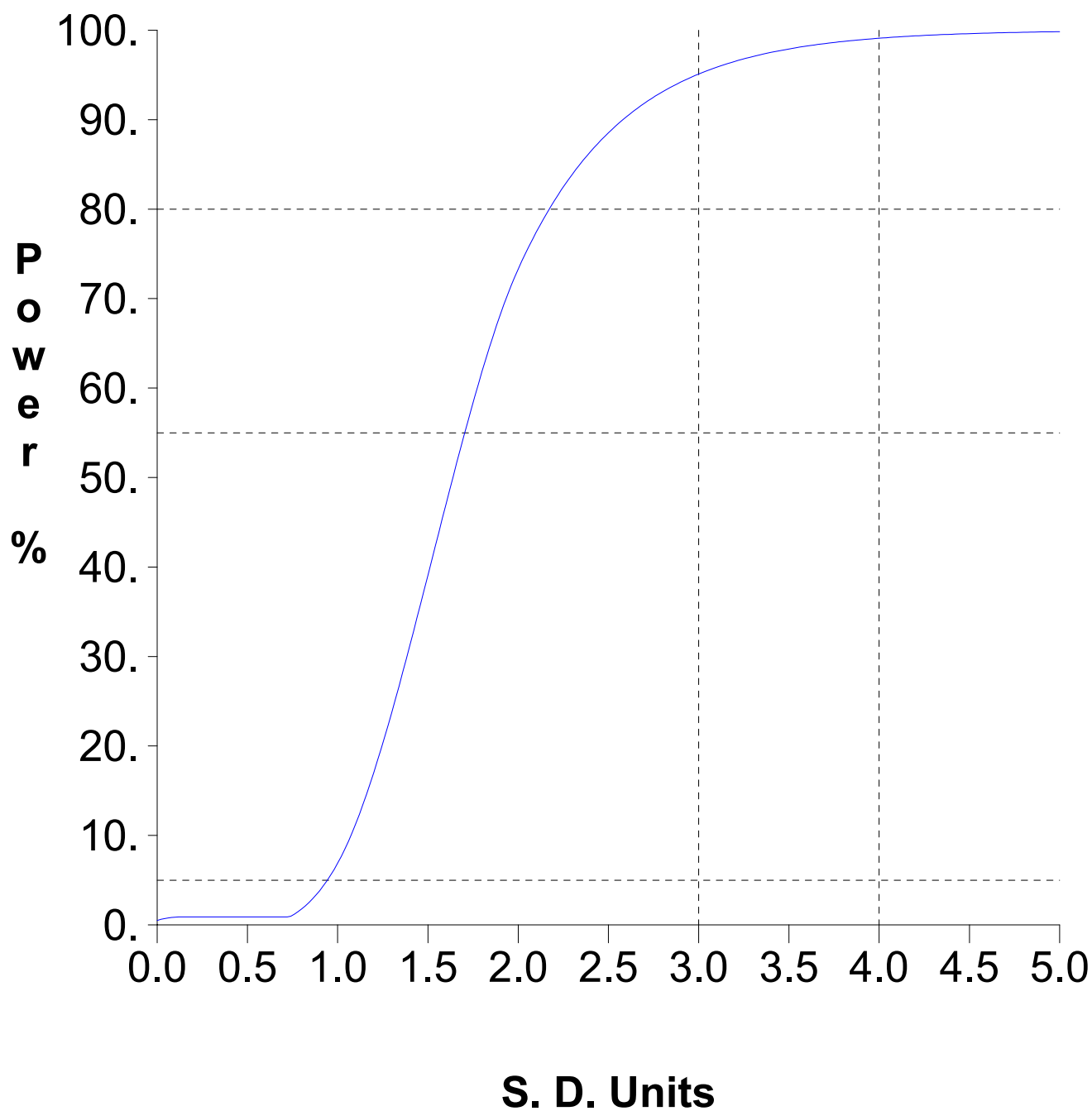


Graph 104



Graph 105

False Positive and False Negative Rates for Current Upgradient vs. Downgradient Monitoring Program



Worksheet 1 - Upgradient vs. Downgradient Comparisons**Antimony, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = median(X) = 2.0	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Arsenic, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = median(X) = 4.0	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Barium, total (ug/L)****Lognormal Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$Y = \log_e(X)$	Transform to natural logarithmic scale.
2	$\bar{Y} = \text{sum}[Y] / N$ = 291.694 / 64 = 4.558	Compute mean on a natural log scale.
3	$S_Y = ((\text{sum}[Y^2] - \text{sum}[Y]^2/N) / (N-1))^{1/2}$ = ((1341.338 - 85085.328/64) / (64-1)) ^{1/2} = 0.434	Compute sd on a natural log scale.
4	$\alpha = \min[(1-.95^{1/K})^{1/2}, .01]$ = min[(1-.95 ^{1/105}) ^{1/2} , .01] = 0.01	Adjusted per comparison false positive rate. Pass initial or 1 resample.
5	$PL = \exp[\bar{Y} + tS_Y(1+1/N)^{1/2}]$ = exp[4.558 + (2.387*0.434)(1+1/64) ^{1/2}] = 271.057	One-sided lognormal prediction limit (t is Student's t on N-1 degrees of freedom and 1-alpha confidence level).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Beryllium, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = median(X) = 4.0	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Cadmium, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = median(X) = 0.8	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Chromium, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = median(X) = 8.0	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Cobalt, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = max(X) = 0.7	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Copper, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = max(X) = 7.9	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Lead, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = median(X) = 4.0	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Nickel, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = max(X) = 11.6	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Selenium, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = max(X) = 4.0	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Silver, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = median(X) = 4.0	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Thallium, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = median(X) = 2.0	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Vanadium, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = median(X) = 20.0	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Worksheet 1 - Upgradient vs. Downgradient Comparisons**Zinc, total (ug/L)****Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = max(X) = 20.8	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

Attachment C

Assessment Statistics

Table 1

**Confidence Intervals for Comparing the Mean of the Last
4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
Arsenic, total	ug/L	MW-24	4	8.400	6.257	1.176	1.040	15.760	10.000	dec
Barium, total	ug/L	MW-24	4	482.500	64.604	1.176	406.507	558.493	2000.000	
Cobalt, total	ug/L	MW-24	4	1.350	0.656	1.176	0.579	2.121	2.100	
Nickel, total	ug/L	MW-24	4	35.300	5.439	1.176	28.902	41.698	100.000	
Arsenic, total	ug/L	MW-25	4	2.925	1.850	1.176	0.749	5.101	10.000	dec
Barium, total	ug/L	MW-25	4	51.400	36.474	1.176	8.496	94.304	2000.000	
Cobalt, total	ug/L	MW-25	4	1.756	1.963	1.176	0.000	4.065	2.100	
Nickel, total	ug/L	MW-25	4	5.000	3.465	1.176	0.924	9.076	100.000	
Arsenic, total	ug/L	MW-26	4	2.000	0.000	1.176	2.000	2.000	10.000	dec
Barium, total	ug/L	MW-26	4	36.900	8.832	1.176	26.511	47.289	2000.000	
Cobalt, total	ug/L	MW-26	4	7.475	6.150	1.176	0.241	14.709	2.100	
Nickel, total	ug/L	MW-26	4	7.075	2.240	1.176	4.441	9.709	100.000	
Arsenic, total	ug/L	MW-32	4	4.275	3.253	1.176	0.448	8.102	10.000	inc
Barium, total	ug/L	MW-32	4	412.750	60.008	1.176	342.164	483.336	2000.000	
Cobalt, total	ug/L	MW-32	4	0.725	0.538	1.176	0.092	1.358	2.100	
Nickel, total	ug/L	MW-32	4	3.150	2.300	1.176	0.445	5.855	100.000	
Arsenic, total	ug/L	MW-33	4	14.300	14.226	1.176	0.000	31.034	10.000	
Barium, total	ug/L	MW-33	4	361.500	407.644	1.176	0.000	841.007	2000.000	
Cobalt, total	ug/L	MW-33	4	63.850	67.560	1.176	0.000	143.320	2.100	
Nickel, total	ug/L	MW-33	4	44.925	48.060	1.176	0.000	101.457	100.000	
Arsenic, total	ug/L	MW-9	4	4.775	1.900	1.176	2.540	7.010	10.000	
Barium, total	ug/L	MW-9	4	476.750	75.588	1.176	387.836	565.664	2000.000	
Cobalt, total	ug/L	MW-9	4	1.700	0.082	1.176	1.604	1.796	2.100	
Nickel, total	ug/L	MW-9	4	6.300	3.459	1.176	2.231	10.369	100.000	

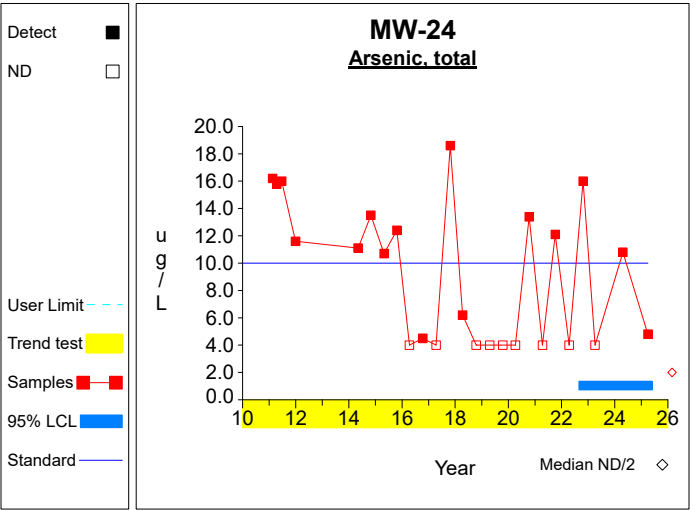
* - Insufficient Data

** - Significant Exceedance

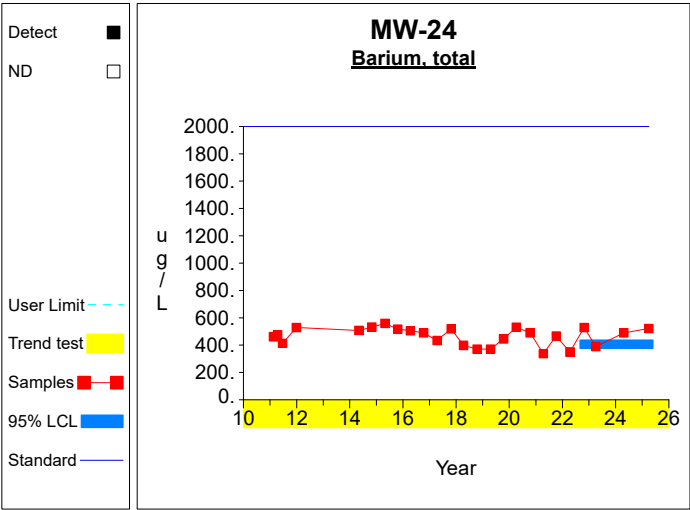
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

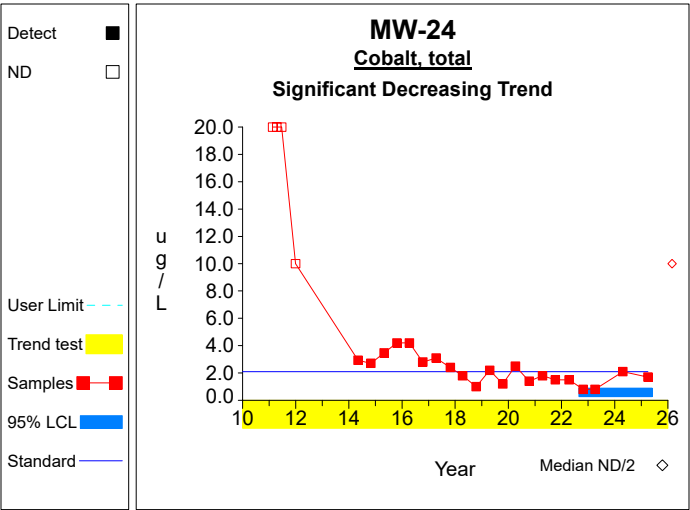
Confidence Limits (Assessment)



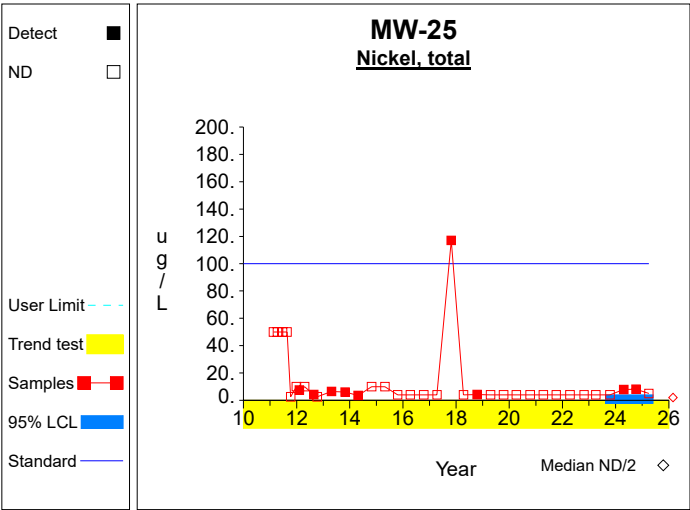
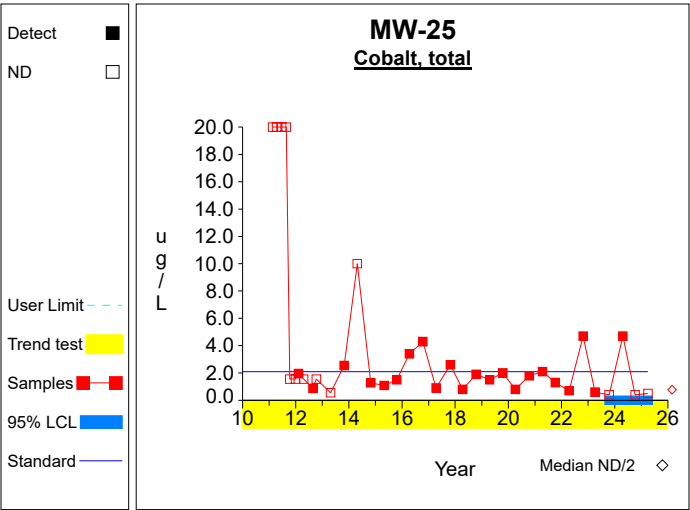
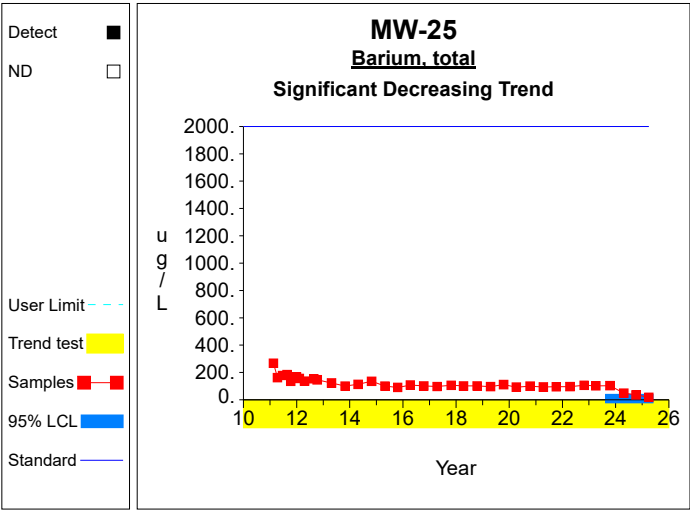
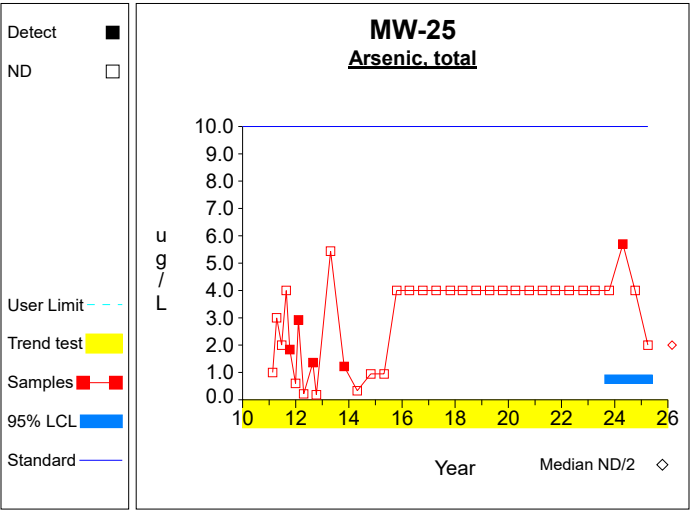
Graph 1



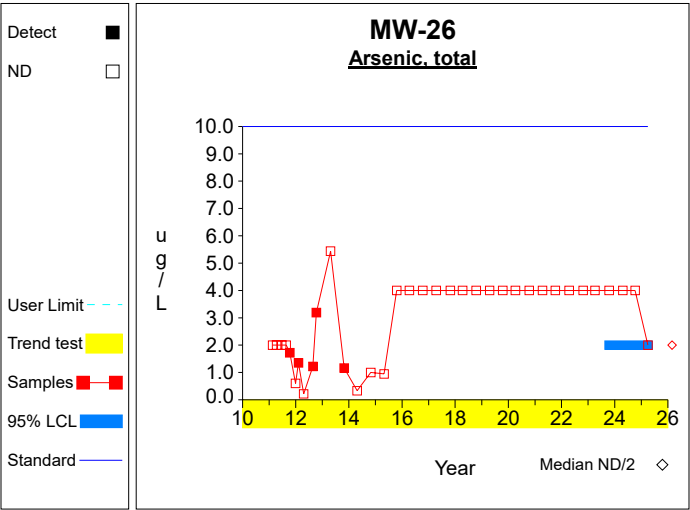
Graph 2



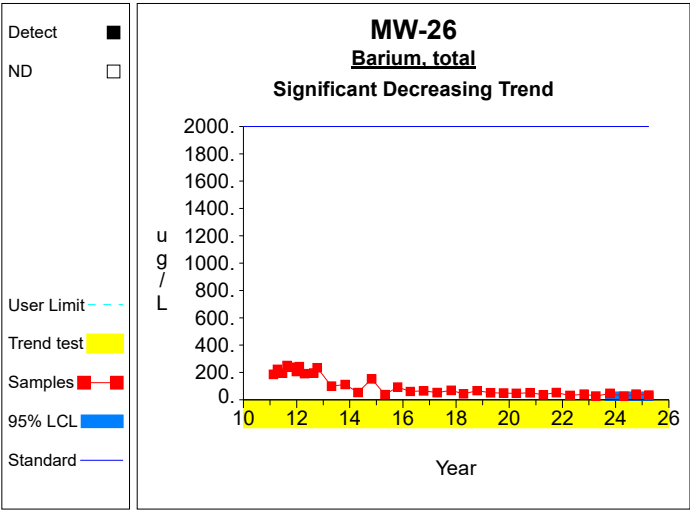
Confidence Limits (Assessment)



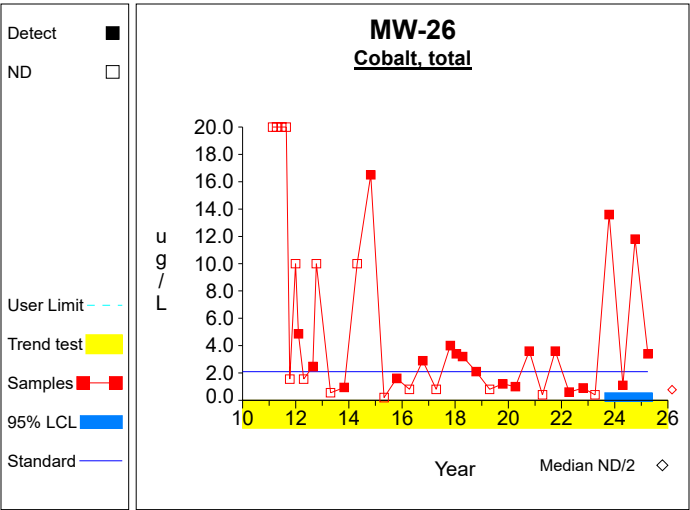
Confidence Limits (Assessment)



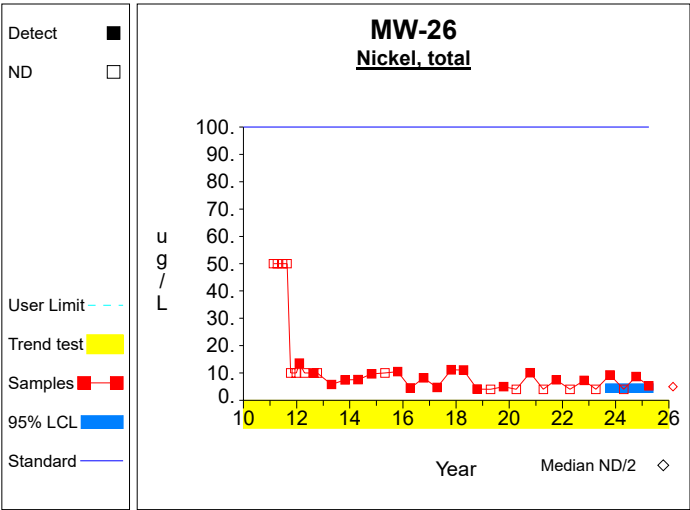
Graph 9



Graph 10

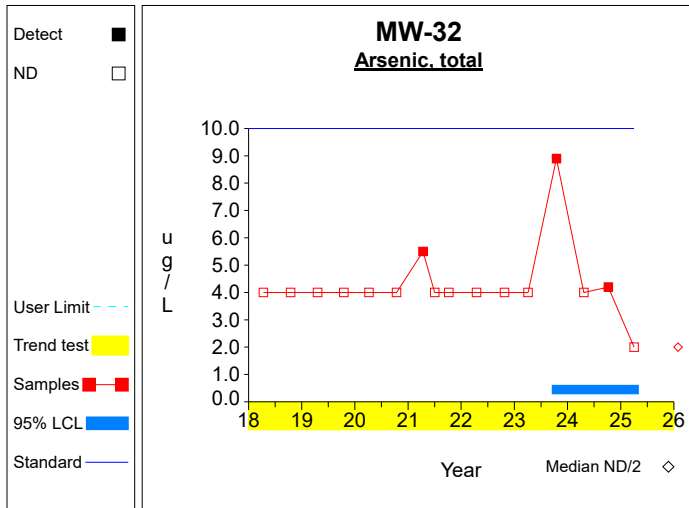


Graph 11

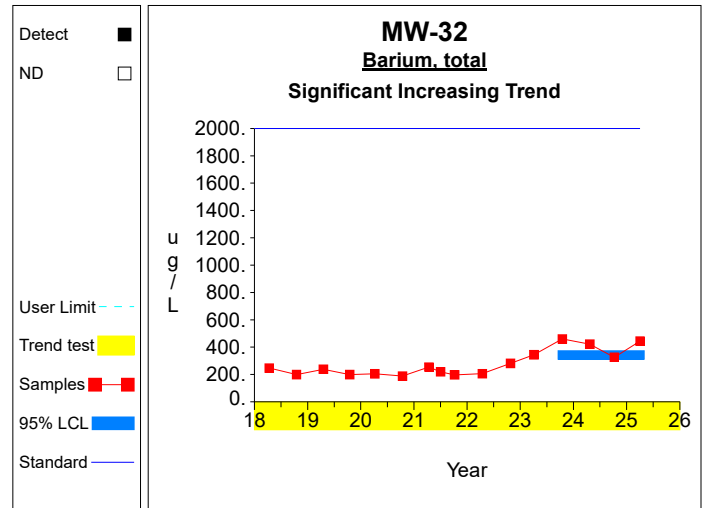


Graph 12

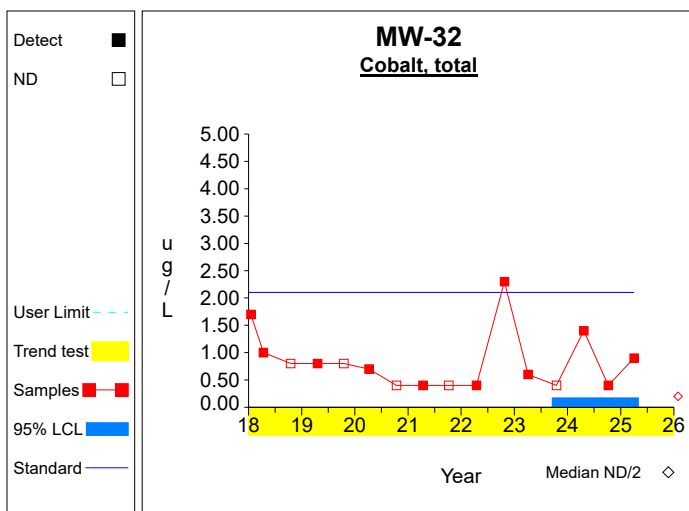
Confidence Limits (Assessment)



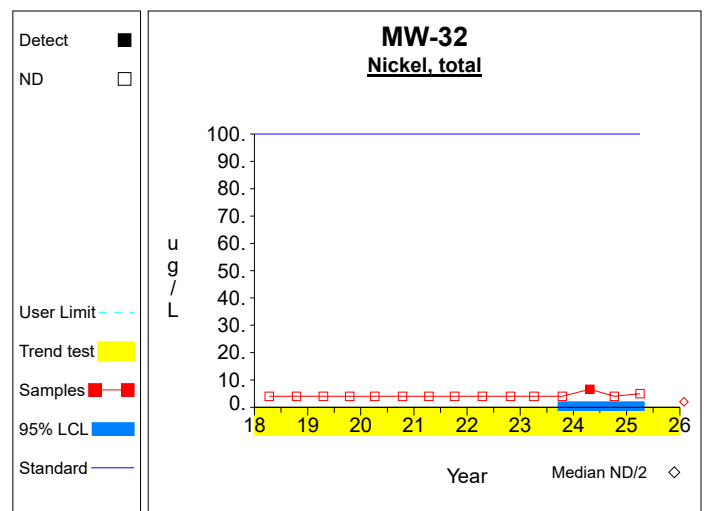
Graph 13



Graph 14

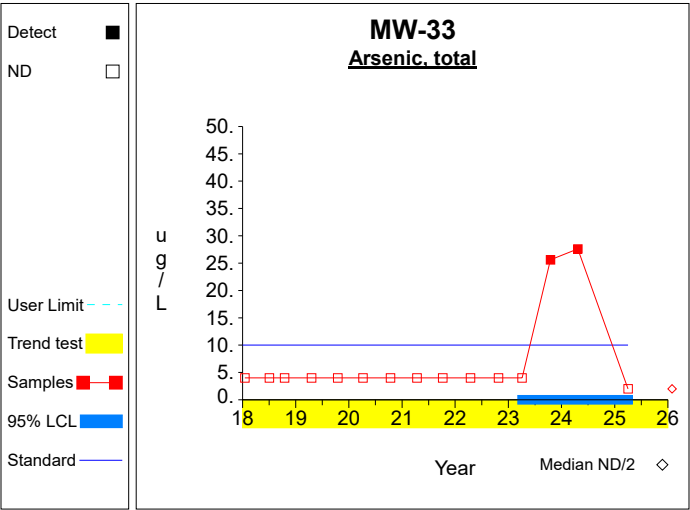


Graph 15

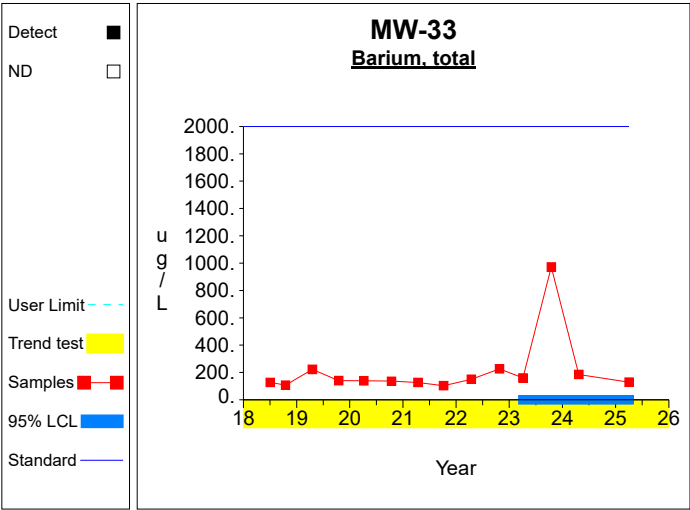


Graph 16

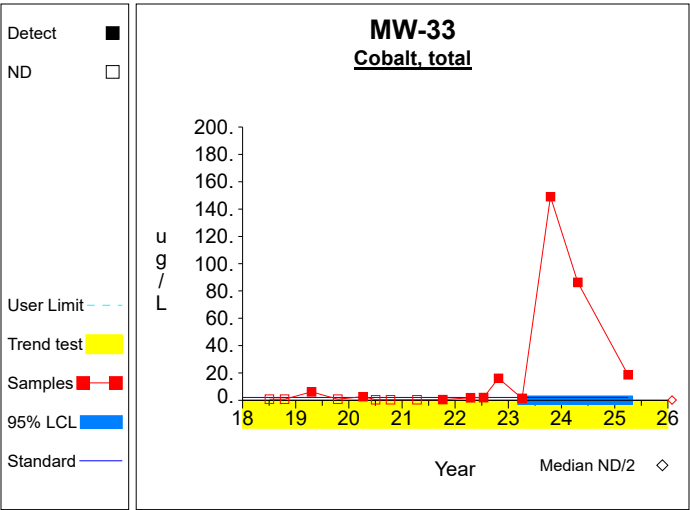
Confidence Limits (Assessment)



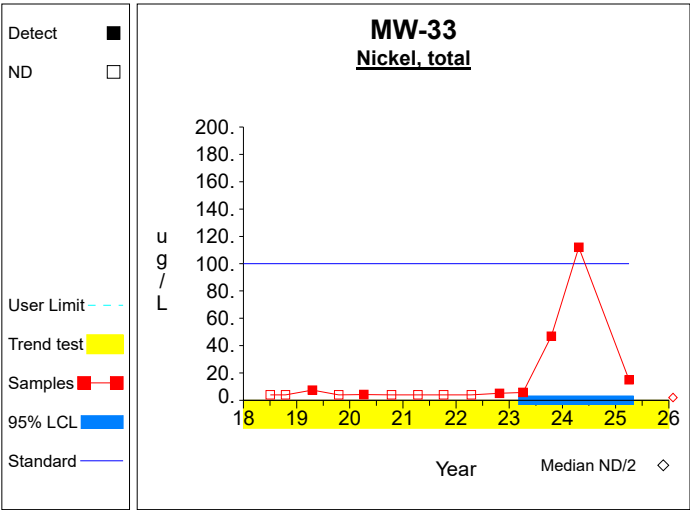
Graph 17



Graph 18

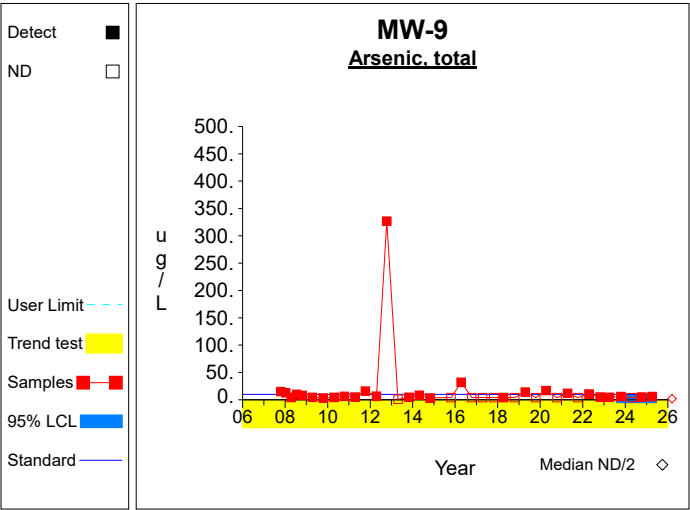


Graph 19

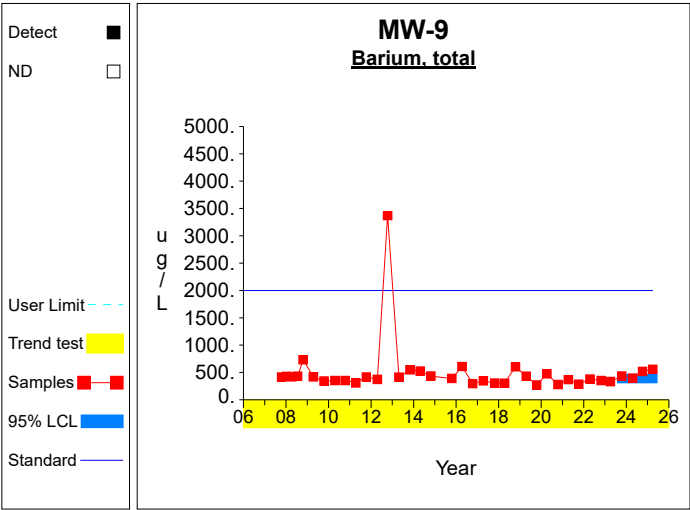


Graph 20

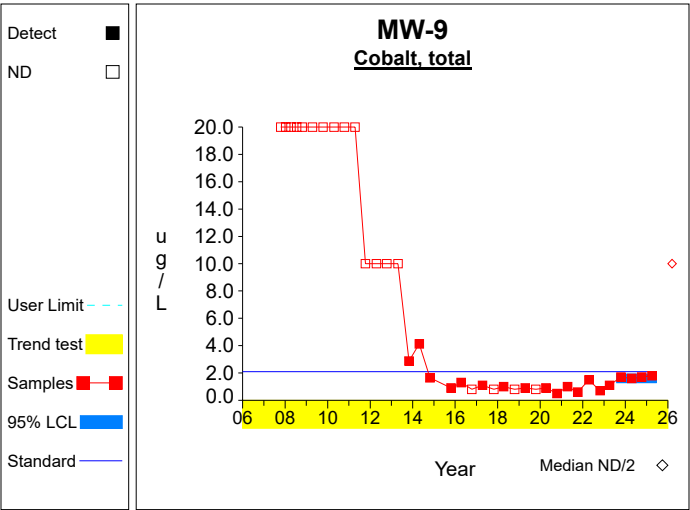
Confidence Limits (Assessment)



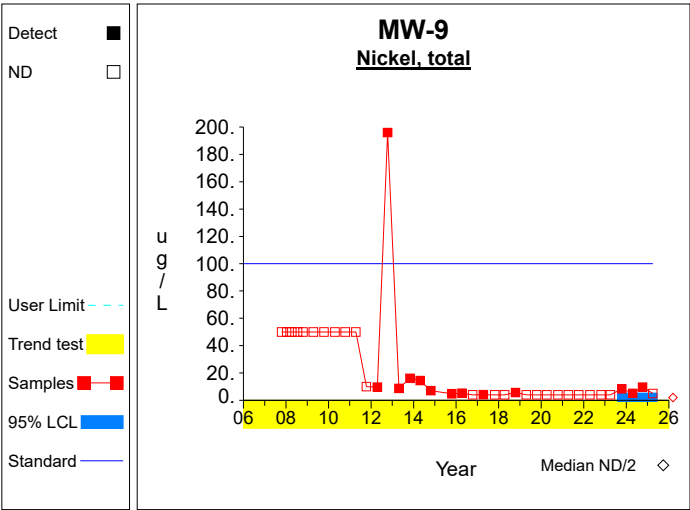
Graph 21



Graph 22



Graph 23



Graph 24

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-24

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 33.6 / 4$ $= 8.4$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((399.68 - 1128.96/4) / (4-1))^{1/2}$ $= 6.257$	Compute sd of the last 4 measurements.
3	$LCL = \bar{X} - tS/N^{1/2}$ $= 8.4 - 2.353 * 6.257/4^{1/2}$ $= 1.04$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$UCL = \bar{X} + tS/N^{1/2}$ $= 8.4 + 2.353 * 6.257/4^{1/2}$ $= 15.76$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 25 * (25-1) / 2$ $= 300$	Number of sample pairs during trend detection period.
6	$S = -0.586$	Sen's estimator of trend.
7	$\text{var}(S) = 1740.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (300 \pm 2.576 * 1740.333^{1/2}) / 2$ $= [96.268, 203.732]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$CL(S) = [-1.437, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Barium, total (ug/L) at MW-24

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 1930.0 / 4$ $= 482.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((943746.0 - 3.72 \times 10^6 / 4) / (4-1))^{1/2}$ $= 64.604$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 482.5 - 2.353 * 64.604/4^{1/2}$ $= 406.507$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 482.5 + 2.353 * 64.604/4^{1/2}$ $= 558.493$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 25 * (25-1) / 2$ $= 300$	Number of sample pairs during trend detection period.
6	$S = -3.171$	Sen's estimator of trend.
7	$\text{var}(S) = 1830.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (300 \pm 2.576 * 1830.333^{1/2}) / 2$ $= [94.896, 205.104]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-15.363, 4.93]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Cobalt, total (ug/L) at MW-24

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 5.4 / 4$ $= 1.35$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((8.58 - 29.16/4) / (4-1))^{1/2}$ $= 0.656$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.35 - 2.353 * 0.656/4^{1/2}$ $= 0.579$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.35 + 2.353 * 0.656/4^{1/2}$ $= 2.121$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 25 * (25-1) / 2$ $= 300$	Number of sample pairs during trend detection period.
6	$S = -0.397$	Sen's estimator of trend.
7	$\text{var}(S) = 1820.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (300 \pm 2.576 * 1820.667^{1/2}) / 2$ $= [95.042, 204.958]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-0.762, -0.178]$	Two-sided confidence interval for slope.
10	$\text{UCL}(S) < 0$	Significant decreasing trend.

Worksheet 6 - Assessment Monitoring
Nickel, total (ug/L) at MW-24

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 141.2 / 4$ $= 35.3$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((5073.12 - 19937.44/4) / (4-1))^{1/2}$ $= 5.439$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 35.3 - 2.353 * 5.439/4^{1/2}$ $= 28.902$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 35.3 + 2.353 * 5.439/4^{1/2}$ $= 41.698$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 25 * (25-1) / 2$ $= 300$	Number of sample pairs during trend detection period.
6	$S = 0.578$	Sen's estimator of trend.
7	$\text{var}(S) = 1816.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (300 \pm 2.576 * 1816.667^{1/2}) / 2$ $= [95.102, 204.898]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-0.045, 1.318]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-25

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 11.7 / 4$ $= 2.925$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((44.49 - 136.89/4) / (4-1))^{1/2}$ $= 1.85$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.925 - 2.353 * 1.85/4^{1/2}$ $= 0.749$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.925 + 2.353 * 1.85/4^{1/2}$ $= 5.101$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 35 * (35-1) / 2$ $= 595$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 1816.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (595 \pm 2.576 * 1816.667^{1/2}) / 2$ $= [242.602, 352.398]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Barium, total (ug/L) at MW-25

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 205.6 / 4$ $= 51.4$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((14558.94 - 42271.36/4) / (4-1))^{1/2}$ $= 36.474$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 51.4 - 2.353 * 36.474/4^{1/2}$ $= 8.496$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 51.4 + 2.353 * 36.474/4^{1/2}$ $= 94.304$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 35 * (35-1) / 2$ $= 595$	Number of sample pairs during trend detection period.
6	$S = -6.98$	Sen's estimator of trend.
7	$\text{var}(S) = 4951.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (595 \pm 2.576 * 4951.667^{1/2}) / 2$ $= [206.866, 388.134]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-9.858, -3.979]$	Two-sided confidence interval for slope.
10	$\text{UCL}(S) < 0$	Significant decreasing trend.

Worksheet 6 - Assessment Monitoring
Cobalt, total (ug/L) at MW-25

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 7.025 / 4$ $= 1.756$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((23.892 - 49.351/4) / (4-1))^{1/2}$ $= 1.963$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.756 - 2.353 * 1.963/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.756 + 2.353 * 1.963/4^{1/2}$ $= 4.065$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 35 * (35-1) / 2$ $= 595$	Number of sample pairs during trend detection period.
6	$S = 0.004$	Sen's estimator of trend.
7	$\text{var}(S) = 4686.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (595 \pm 2.576 * 4686.667^{1/2}) / 2$ $= [209.325, 385.675]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.133]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Nickel, total (ug/L) at MW-25

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 20.0 / 4$ $= 5.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((136.02 - 400.0/4) / (4-1))^{1/2}$ $= 3.465$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 5.0 - 2.353 * 3.465/4^{1/2}$ $= 0.924$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 5.0 + 2.353 * 3.465/4^{1/2}$ $= 9.076$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 35 * (35-1) / 2$ $= 595$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 2900.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (595 \pm 2.576 * 2900.0^{1/2}) / 2$ $= [228.139, 366.861]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-26

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.0 / 4$ $= 2.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((16.0 - 64.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.0 - 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.0 + 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 35 * (35-1) / 2$ $= 595$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 1816.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (595 \pm 2.576 * 1816.667^{1/2}) / 2$ $= [242.602, 352.398]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Barium, total (ug/L) at MW-26

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 147.6 / 4$ $= 36.9$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((5680.46 - 21785.76/4) / (4-1))^{1/2}$ $= 8.832$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 36.9 - 2.353 * 8.832/4^{1/2}$ $= 26.511$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 36.9 + 2.353 * 8.832/4^{1/2}$ $= 47.289$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 35 * (35-1) / 2$ $= 595$	Number of sample pairs during trend detection period.
6	$S = -12.786$	Sen's estimator of trend.
7	$\text{var}(S) = 4957.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (595 \pm 2.576 * 4957.333^{1/2}) / 2$ $= [206.814, 388.186]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-18.071, -6.158]$	Two-sided confidence interval for slope.
10	$\text{UCL}(S) < 0$	Significant decreasing trend.

Worksheet 6 - Assessment Monitoring
Cobalt, total (ug/L) at MW-26

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 29.9 / 4$ $= 7.475$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((336.97 - 894.01/4) / (4-1))^{1/2}$ $= 6.15$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 7.475 - 2.353 * 6.15/4^{1/2}$ $= 0.241$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 7.475 + 2.353 * 6.15/4^{1/2}$ $= 14.709$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 36 * (36-1) / 2$ $= 630$	Number of sample pairs during trend detection period.
6	$S = 0.025$	Sen's estimator of trend.
7	$\text{var}(S) = 4894.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (630 \pm 2.576 * 4894.667^{1/2}) / 2$ $= [224.889, 405.111]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.205]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Nickel, total (ug/L) at MW-26

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 28.3 / 4$ $= 7.075$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((215.27 - 800.89/4) / (4-1))^{1/2}$ $= 2.24$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 7.075 - 2.353 * 2.24/4^{1/2}$ $= 4.441$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 7.075 + 2.353 * 2.24/4^{1/2}$ $= 9.709$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 35 * (35-1) / 2$ $= 595$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 4465.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (595 \pm 2.576 * 4465.0^{1/2}) / 2$ $= [211.435, 383.565]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-0.037, 0.2]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-32

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 17.1 / 4$ $= 4.275$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((104.85 - 292.41/4) / (4-1))^{1/2}$ $= 3.253$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 4.275 - 2.353 * 3.253/4^{1/2}$ $= 0.448$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 4.275 + 2.353 * 3.253/4^{1/2}$ $= 8.102$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 224.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 224.667^{1/2}) / 2$ $= [40.694, 79.306]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Barium, total (ug/L) at MW-32

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 1651.0 / 4$ $= 412.75$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((692253.0 - 2.73 \times 10^6 / 4) / (4-1))^{1/2}$ $= 60.008$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 412.75 - 2.353 * 60.008/4^{1/2}$ $= 342.164$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 412.75 + 2.353 * 60.008/4^{1/2}$ $= 483.336$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 27.682$	Sen's estimator of trend.
7	$\text{var}(S) = 492.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 492.333^{1/2}) / 2$ $= [31.421, 88.579]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.208, 52.904]$	Two-sided confidence interval for slope.
10	$\text{LCL}(S) > 0$	Significant increasing trend.

Worksheet 6 - Assessment Monitoring
Cobalt, total (ug/L) at MW-32

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.9 / 4$ $= 0.725$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((2.97 - 8.41/4) / (4-1))^{1/2}$ $= 0.538$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.725 - 2.353 * 0.538/4^{1/2}$ $= 0.092$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.725 + 2.353 * 0.538/4^{1/2}$ $= 1.358$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 473.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 473.0^{1/2}) / 2$ $= [31.988, 88.012]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-0.2, 0.15]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Nickel, total (ug/L) at MW-32

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 12.6 / 4$ $= 3.15$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((55.56 - 158.76/4) / (4-1))^{1/2}$ $= 2.3$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 3.15 - 2.353 * 2.3/4^{1/2}$ $= 0.445$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 3.15 + 2.353 * 2.3/4^{1/2}$ $= 5.855$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 15 * (15-1) / 2$ $= 105$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 74.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (105 \pm 2.576 * 74.667^{1/2}) / 2$ $= [41.37, 63.63]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-33

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 57.2 / 4$ $= 14.3$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1425.12 - 3271.84/4) / (4-1))^{1/2}$ $= 14.226$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 14.3 - 2.353 * 14.226/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 14.3 + 2.353 * 14.226/4^{1/2}$ $= 31.034$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 15 * (15-1) / 2$ $= 105$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 139.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (105 \pm 2.576 * 139.667^{1/2}) / 2$ $= [37.278, 67.722]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Barium, total (ug/L) at MW-33

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 1446.0 / 4$ $= 361.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.02 \times 10^6 - 2.09 \times 10^6/4) / (4-1))^{1/2}$ $= 407.644$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 361.5 - 2.353 * 407.644/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 361.5 + 2.353 * 407.644/4^{1/2}$ $= 841.007$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 14 * (14-1) / 2$ $= 91$	Number of sample pairs during trend detection period.
6	$S = 7.024$	Sen's estimator of trend.
7	$\text{var}(S) = 332.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (91 \pm 2.576 * 332.667^{1/2}) / 2$ $= [22.008, 68.992]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-11.805, 29.559]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Cobalt, total (ug/L) at MW-33

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 255.4 / 4$ $= 63.85$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((30000.34 - 65229.16/4) / (4-1))^{1/2}$ $= 67.56$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 63.85 - 2.353 * 67.56/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 63.85 + 2.353 * 67.56/4^{1/2}$ $= 143.32$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 1.049$	Sen's estimator of trend.
7	$\text{var}(S) = 465.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 465.0^{1/2}) / 2$ $= [32.226, 87.774]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 7.762]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Nickel, total (ug/L) at MW-33

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 179.7 / 4$ $= 44.925$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((15002.25 - 32292.09/4) / (4-1))^{1/2}$ $= 48.06$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 44.925 - 2.353 * 48.06/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 44.925 + 2.353 * 48.06/4^{1/2}$ $= 101.457$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 14 * (14-1) / 2$ $= 91$	Number of sample pairs during trend detection period.
6	$S = 1.493$	Sen's estimator of trend.
7	$\text{var}(S) = 289.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (91 \pm 2.576 * 289.333^{1/2}) / 2$ $= [23.591, 67.409]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 7.562]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 19.1 / 4$ $= 4.775$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((102.03 - 364.81/4) / (4-1))^{1/2}$ $= 1.9$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 4.775 - 2.353 * 1.9/4^{1/2}$ $= 2.54$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 4.775 + 2.353 * 1.9/4^{1/2}$ $= 7.01$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 37 * (37-1) / 2$ $= 666$	Number of sample pairs during trend detection period.
6	$S = -0.154$	Sen's estimator of trend.
7	$\text{var}(S) = 5720.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (666 \pm 2.576 * 5720.0^{1/2}) / 2$ $= [235.588, 430.412]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-0.538, 0.082]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Barium, total (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 1907.0 / 4$ $= 476.75$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((926303.0 - 3.64 \times 10^6 / 4) / (4-1))^{1/2}$ $= 75.588$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 476.75 - 2.353 * 75.588/4^{1/2}$ $= 387.836$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 476.75 + 2.353 * 75.588/4^{1/2}$ $= 565.664$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 37 * (37-1) / 2$ $= 666$	Number of sample pairs during trend detection period.
6	$S = -2.19$	Sen's estimator of trend.
7	$\text{var}(S) = 5843.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (666 \pm 2.576 * 5843.0^{1/2}) / 2$ $= [234.546, 431.454]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-10.569, 6.419]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Cobalt, total (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 6.8 / 4$ $= 1.7$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((11.58 - 46.24/4) / (4-1))^{1/2}$ $= 0.082$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.7 - 2.353 * 0.082/4^{1/2}$ $= 1.604$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.7 + 2.353 * 0.082/4^{1/2}$ $= 1.796$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 37 * (37-1) / 2$ $= 666$	Number of sample pairs during trend detection period.
6	$S = -0.459$	Sen's estimator of trend.
7	$\text{var}(S) = 5142.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (666 \pm 2.576 * 5142.333^{1/2}) / 2$ $= [240.637, 425.363]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-0.729, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Nickel, total (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 25.2 / 4$ $= 6.3$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((194.66 - 635.04/4) / (4-1))^{1/2}$ $= 3.459$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 6.3 - 2.353 * 3.459/4^{1/2}$ $= 2.231$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 6.3 + 2.353 * 3.459/4^{1/2}$ $= 10.369$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 37 * (37-1) / 2$ $= 666$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 4220.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (666 \pm 2.576 * 4220.667^{1/2}) / 2$ $= [249.323, 416.677]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Attachment D

Summary Table of Historical VOC Detections

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Bis(2-ethylhexyl) phthalate	MW-10	4/12/2017		6	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-10	4/11/2018		7	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-10	10/16/2018		34	6	ug/L
Carbon disulfide	MW-12	10/24/2014		2.42	.10	ug/L
Carbon disulfide	MW-14R	2/18/2011		2.25	1.00	ug/L
Carbon disulfide	MW-16	10/24/2014		2.97	.10	ug/L
Carbon disulfide	MW-17	10/24/2014		1.34	.10	ug/L
Carbon disulfide	MW-18	10/21/2014		1.17	1.00	ug/L
1,1-dichloroethane	MW-24	10/21/2015		1.0	1.0	ug/L
1,1-dichloroethane	MW-24	10/13/2020		1.1	1.0	ug/L
1,1-dichloroethane	MW-24	10/06/2021		1.2	1.0	ug/L
1,1-dichloroethane	MW-24	10/25/2022		1.7	1.0	ug/L
1,1-dichloroethane	MW-24	4/01/2025		1.5	1.0	ug/L
Benzene	MW-24	10/29/2014		.718	.500	ug/L
Benzene	MW-24	4/28/2015		1.080	.500	ug/L
Benzene	MW-24	10/21/2015		1.600	1.000	ug/L
Benzene	MW-24	10/11/2016		1.400	1.000	ug/L
Benzene	MW-24	4/11/2018		1.200	1.000	ug/L
Benzene	MW-24	10/13/2020		1.600	1.000	ug/L
Benzene	MW-24	10/06/2021		1.400	1.000	ug/L
Benzene	MW-24	10/25/2022		2.000	1.000	ug/L
Benzene	MW-24	4/01/2025		1.100	1.000	ug/L
Bis(2-ethylhexyl) phthalate	MW-24	4/12/2021		12	6	ug/L
Carbon disulfide	MW-24	10/29/2014		2.24	.10	ug/L
Chloroethane	MW-24	10/25/2022		1.1	1.0	ug/L
Vinyl chloride	MW-24	10/13/2020		1.4	1.0	ug/L
Vinyl chloride	MW-24	10/06/2021		1.4	1.0	ug/L
Vinyl chloride	MW-24	10/25/2022		2.2	1.0	ug/L
Vinyl chloride	MW-24	4/01/2025		1.7	1.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-25	4/12/2017		18	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-25	4/03/2023		15	6	ug/L
Carbon disulfide	MW-25	10/28/2014		1.7	.1	ug/L
Acetone	MW-26	10/16/2023		27.1	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-26	10/26/2017		12	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-26	4/17/2019		7	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-26	4/03/2023		18	6	ug/L
1,1-dichloroethane	MW-27	8/23/2012		2.65	1.00	ug/L
1,1-dichloroethane	MW-27	10/10/2012		9.18	1.00	ug/L
1,1-dichloroethane	MW-27	12/19/2012		7.02	1.00	ug/L
1,1-dichloroethane	MW-27	4/23/2013		2.38	1.00	ug/L
1,1-dichloroethane	MW-27	10/28/2013		1.83	1.00	ug/L
1,1-dichloroethane	MW-27	4/25/2014		2.25	1.00	ug/L
1,1-dichloroethane	MW-27	10/27/2014		1.90	1.00	ug/L
1,1-dichloroethane	MW-27	4/27/2015		9.70	1.00	ug/L
1,1-dichloroethane	MW-27	10/21/2015		1.50	1.00	ug/L
1,1-dichloroethane	MW-27	4/11/2016		5.80	1.00	ug/L
1,1-dichloroethane	MW-27	10/11/2016		5.90	1.00	ug/L
1,1-dichloroethane	MW-27	4/12/2017		3.20	1.00	ug/L
1,1-dichloroethane	MW-27	10/26/2017		2.90	1.00	ug/L
Benzene	MW-27	8/23/2012		1.060	.500	ug/L
Benzene	MW-27	10/10/2012		2.660	.500	ug/L
Benzene	MW-27	12/19/2012		1.950	.500	ug/L
Benzene	MW-27	4/23/2013		1.040	.500	ug/L
Benzene	MW-27	10/28/2013		.763	.500	ug/L
Benzene	MW-27	4/25/2014		1.280	.500	ug/L
Benzene	MW-27	10/27/2014		1.330	.500	ug/L
Benzene	MW-27	4/27/2015		2.920	.500	ug/L
Benzene	MW-27	4/11/2016		1.000	1.000	ug/L
Benzene	MW-27	10/11/2016		1.100	1.000	ug/L
Benzene	MW-27	10/26/2017		1.500	1.000	ug/L
Chloroethane	MW-27	4/27/2015		5.97	1.00	ug/L
Chloroethane	MW-27	4/11/2016		4.50	1.00	ug/L
Chloroethane	MW-27	10/11/2016		4.90	1.00	ug/L
Chloroethane	MW-27	4/12/2017		2.90	1.00	ug/L
Chloroethane	MW-27	10/26/2017		2.50	1.00	ug/L
Cis-1,2-dichloroethylene	MW-27	8/23/2012		1.32	1.00	ug/L
Cis-1,2-dichloroethylene	MW-27	10/10/2012		5.11	1.00	ug/L
Cis-1,2-dichloroethylene	MW-27	12/19/2012		3.53	1.00	ug/L
Cis-1,2-dichloroethylene	MW-27	10/28/2013		1.07	1.00	ug/L
Vinyl chloride	MW-27	10/10/2012		2.46	1.00	ug/L
Vinyl chloride	MW-27	12/19/2012		1.94	1.00	ug/L
Vinyl chloride	MW-27	4/27/2015		1.82	1.00	ug/L
Vinyl chloride	MW-27	4/11/2016		1.30	1.00	ug/L
Vinyl chloride	MW-27	10/11/2016		1.40	1.00	ug/L
Vinyl chloride	MW-27	4/12/2017		1.30	1.00	ug/L
1,1-dichloroethane	MW-28	10/24/2014		1.38	1.00	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
1,1-dichloroethane	MW-28	4/27/2015		1.29	1.00	ug/L
1,1-dichloroethane	MW-28	10/11/2016		1.80	1.00	ug/L
Benzene	MW-28	8/23/2012		1.33	.50	ug/L
Benzene	MW-28	10/11/2012		1.29	.50	ug/L
Benzene	MW-28	12/19/2012		1.18	.50	ug/L
Benzene	MW-28	4/23/2013		2.50	.50	ug/L
Benzene	MW-28	10/28/2013		1.06	.50	ug/L
Benzene	MW-28	4/28/2014		2.30	.50	ug/L
Benzene	MW-28	10/24/2014		5.64	.50	ug/L
Benzene	MW-28	4/27/2015		4.56	.50	ug/L
Benzene	MW-28	10/21/2015		2.50	1.00	ug/L
Benzene	MW-28	4/11/2016		7.20	1.00	ug/L
Benzene	MW-28	10/11/2016		12.00	1.00	ug/L
Benzene	MW-28	4/12/2017		7.50	1.00	ug/L
Benzene	MW-28	10/26/2017		9.80	1.00	ug/L
Bis(2-ethylhexyl) phthalate	MW-28	10/21/2015		8	8	ug/L
Carbon disulfide	MW-28	10/24/2014		1.18	.10	ug/L
Chloroethane	MW-28	4/28/2014		6.11	1.00	ug/L
Chloroethane	MW-28	10/24/2014		4.25	1.00	ug/L
Chloroethane	MW-28	10/21/2015		1.40	1.00	ug/L
Chloroethane	MW-28	10/11/2016		1.60	1.00	ug/L
Chloroethane	MW-28	4/12/2017		3.50	1.00	ug/L
Bis(2-ethylhexyl) phthalate	MW-33	10/25/2022		55	6	ug/L
1,1-dichloroethane	MW-5	10/10/2012		1.19	1.00	ug/L
1,1-dichloroethane	MW-5	4/23/2013		1.64	1.00	ug/L
1,1-dichloroethane	MW-5	10/29/2013		1.16	1.00	ug/L
1,1-dichloroethane	MW-5	10/17/2014		1.41	1.00	ug/L
1,1-dichloroethane	MW-5	4/29/2015		1.22	1.00	ug/L
1,1-dichloroethane	MW-5	10/21/2015		1.30	1.00	ug/L
1,1-dichloroethane	MW-5	4/11/2018		1.00	1.00	ug/L
1,1-dichloroethane	MW-5	10/07/2024		2.20	1.00	ug/L
1,1-dichloroethane	MW-5	4/01/2025		9.80	1.00	ug/L
1,4-dichlorobenzene	MW-5	4/11/2018		1.1	1.0	ug/L
1,4-dichlorobenzene	MW-5	10/06/2021		1.0	1.0	ug/L
1,4-dichlorobenzene	MW-5	4/14/2022		1.0	1.0	ug/L
1,4-dichlorobenzene	MW-5	4/01/2025		1.2	1.0	ug/L
2-butanone	MW-5	4/23/2013		27.0	1.0	ug/L
2-butanone	MW-5	4/23/2014		43.6	1.0	ug/L
2-butanone	MW-5	4/29/2015		16.8	1.0	ug/L
2-butanone	MW-5	4/11/2018		28.0	5.0	ug/L
2-butanone	MW-5	4/14/2022		28.4	10.0	ug/L
2-butanone	MW-5	4/01/2025		12.6	10.0	ug/L
Acetone	MW-5	4/18/2012		13.6	1.0	ug/L
Acetone	MW-5	4/23/2013		1240.0	1.0	ug/L
Acetone	MW-5	4/23/2014		1530.0	1.0	ug/L
Acetone	MW-5	4/29/2015		103.0	1.0	ug/L
Acetone	MW-5	4/11/2018		1690.0	100.0	ug/L
Acetone	MW-5	4/12/2021		14.8	10.0	ug/L
Acetone	MW-5	4/14/2022		751.0	100.0	ug/L
Acetone	MW-5	4/01/2025		217.0	10.0	ug/L
Benzene	MW-5	4/12/2011		1.42	1.00	ug/L
Benzene	MW-5	5/06/2011		3.47	1.00	ug/L
Benzene	MW-5	6/21/2011		.95	.10	ug/L
Benzene	MW-5	10/10/2011		3.06	1.00	ug/L
Benzene	MW-5	4/18/2012		2.88	1.00	ug/L
Benzene	MW-5	10/10/2012		2.68	1.00	ug/L
Benzene	MW-5	4/23/2013		7.26	1.00	ug/L
Benzene	MW-5	10/29/2013		4.91	1.00	ug/L
Benzene	MW-5	4/23/2014		6.76	1.00	ug/L
Benzene	MW-5	10/17/2014		6.31	1.00	ug/L
Benzene	MW-5	4/29/2015		7.19	1.00	ug/L
Benzene	MW-5	10/21/2015		6.70	1.00	ug/L
Benzene	MW-5	4/11/2016		4.60	1.00	ug/L
Benzene	MW-5	10/11/2016		5.70	1.00	ug/L
Benzene	MW-5	4/12/2017		4.70	1.00	ug/L
Benzene	MW-5	10/26/2017		6.20	1.00	ug/L
Benzene	MW-5	4/11/2018		8.70	1.00	ug/L
Benzene	MW-5	10/16/2018		5.90	1.00	ug/L
Benzene	MW-5	4/17/2019		6.60	1.00	ug/L
Benzene	MW-5	10/15/2019		5.60	1.00	ug/L
Benzene	MW-5	4/06/2020		5.60	1.00	ug/L
Benzene	MW-5	10/14/2020		6.30	1.00	ug/L
Benzene	MW-5	4/12/2021		5.70	1.00	ug/L
Benzene	MW-5	10/06/2021		4.50	1.00	ug/L
Benzene	MW-5	4/14/2022		6.00	1.00	ug/L
Benzene	MW-5	10/25/2022		5.40	1.00	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Benzene	MW-5	4/03/2023		6.50	1.00	ug/L
Benzene	MW-5	10/16/2023		4.50	1.00	ug/L
Benzene	MW-5	4/22/2024		3.70	1.00	ug/L
Benzene	MW-5	10/07/2024		5.20	1.00	ug/L
Benzene	MW-5	4/01/2025		7.20	1.00	ug/L
Bis(2-ethylhexyl) phthalate	MW-5	10/21/2015		8	8	ug/L
Carbon disulfide	MW-5	10/17/2014		1.04	1.00	ug/L
Carbon disulfide	MW-5	4/14/2022		2.40	1.00	ug/L
Chlorobenzene	MW-5	4/23/2013		1.49	1.00	ug/L
Chlorobenzene	MW-5	4/23/2014		1.38	1.00	ug/L
Chlorobenzene	MW-5	10/17/2014		1.22	1.00	ug/L
Chlorobenzene	MW-5	4/29/2015		1.44	1.00	ug/L
Chlorobenzene	MW-5	10/26/2017		1.30	1.00	ug/L
Chlorobenzene	MW-5	4/11/2018		1.80	1.00	ug/L
Chlorobenzene	MW-5	10/15/2019		1.00	1.00	ug/L
Chlorobenzene	MW-5	10/14/2020		1.00	1.00	ug/L
Chlorobenzene	MW-5	10/06/2021		1.10	1.00	ug/L
Chlorobenzene	MW-5	4/14/2022		1.50	1.00	ug/L
Chlorobenzene	MW-5	10/25/2022		1.10	1.00	ug/L
Chlorobenzene	MW-5	4/03/2023		1.10	1.00	ug/L
Chlorobenzene	MW-5	10/16/2023		1.00	1.00	ug/L
Chlorobenzene	MW-5	10/07/2024		1.00	1.00	ug/L
Chlorobenzene	MW-5	4/01/2025		2.00	1.00	ug/L
Chloroethane	MW-5	4/12/2011		5.40	1.00	ug/L
Chloroethane	MW-5	5/06/2011		5.72	1.00	ug/L
Chloroethane	MW-5	10/10/2011		4.39	1.00	ug/L
Chloroethane	MW-5	4/18/2012		5.42	1.00	ug/L
Chloroethane	MW-5	10/10/2012		5.48	1.00	ug/L
Chloroethane	MW-5	4/23/2013		7.72	1.00	ug/L
Chloroethane	MW-5	10/29/2013		6.04	1.00	ug/L
Chloroethane	MW-5	4/23/2014		10.10	1.00	ug/L
Chloroethane	MW-5	10/17/2014		6.05	1.00	ug/L
Chloroethane	MW-5	4/29/2015		8.30	1.00	ug/L
Chloroethane	MW-5	10/21/2015		6.80	1.00	ug/L
Chloroethane	MW-5	4/11/2016		7.20	1.00	ug/L
Chloroethane	MW-5	10/11/2016		7.20	1.00	ug/L
Chloroethane	MW-5	4/12/2017		6.00	1.00	ug/L
Chloroethane	MW-5	10/26/2017		5.00	1.00	ug/L
Chloroethane	MW-5	4/11/2018		6.30	1.00	ug/L
Chloroethane	MW-5	10/16/2018		2.80	1.00	ug/L
Chloroethane	MW-5	4/17/2019		5.50	1.00	ug/L
Chloroethane	MW-5	10/15/2019		3.50	1.00	ug/L
Chloroethane	MW-5	4/06/2020		4.90	1.00	ug/L
Chloroethane	MW-5	10/14/2020		4.20	1.00	ug/L
Chloroethane	MW-5	4/12/2021		4.20	1.00	ug/L
Chloroethane	MW-5	10/06/2021		3.20	1.00	ug/L
Chloroethane	MW-5	4/14/2022		3.20	1.00	ug/L
Chloroethane	MW-5	10/25/2022		3.80	1.00	ug/L
Chloroethane	MW-5	4/03/2023		5.60	1.00	ug/L
Chloroethane	MW-5	10/16/2023		4.00	1.00	ug/L
Chloroethane	MW-5	4/22/2024		4.10	1.00	ug/L
Chloroethane	MW-5	10/07/2024		6.10	1.00	ug/L
Chloroethane	MW-5	4/01/2025		8.50	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/12/2011		1.82	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	5/06/2011		2.96	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	6/21/2011		1.30	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/10/2011		1.60	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/18/2012		2.65	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/10/2012		1.76	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/23/2013		2.07	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/29/2013		1.75	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/23/2014		2.16	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/17/2014		2.06	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/29/2015		2.02	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/21/2015		1.90	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/11/2016		1.60	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/11/2016		1.60	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/12/2017		1.60	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/26/2017		1.50	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/11/2018		2.40	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/17/2019		1.30	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/14/2020		1.20	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/06/2021		1.60	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/14/2022		1.50	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/25/2022		1.80	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/03/2023		1.80	1.00	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Cis-1,2-dichloroethylene	MW-5	10/16/2023		1.60	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/22/2024		1.10	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/07/2024		1.10	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/01/2025		2.10	1.00	ug/L
Ethylbenzene	MW-5	4/23/2013		15.20	1.00	ug/L
Ethylbenzene	MW-5	4/23/2014		13.30	1.00	ug/L
Ethylbenzene	MW-5	10/17/2014		2.31	1.00	ug/L
Ethylbenzene	MW-5	4/29/2015		15.40	1.00	ug/L
Ethylbenzene	MW-5	10/26/2017		1.20	1.00	ug/L
Ethylbenzene	MW-5	4/11/2018		23.00	1.00	ug/L
Ethylbenzene	MW-5	4/17/2019		2.90	1.00	ug/L
Ethylbenzene	MW-5	4/12/2021		5.10	1.00	ug/L
Ethylbenzene	MW-5	4/14/2022		11.90	1.00	ug/L
Ethylbenzene	MW-5	10/25/2022		2.70	1.00	ug/L
Ethylbenzene	MW-5	4/01/2025		6.70	1.00	ug/L
Methane	MW-5	7/23/2019		5060	704	ug/L
Methane	MW-5	10/07/2024		1520	25	ug/L
Toluene	MW-5	4/23/2013		1.9	1.0	ug/L
Toluene	MW-5	10/25/2022		6.5	1.0	ug/L
Toluene	MW-5	10/07/2024		2.3	1.0	ug/L
Vinyl chloride	MW-5	4/12/2011		2.74	1.00	ug/L
Vinyl chloride	MW-5	5/06/2011		1.90	1.00	ug/L
Vinyl chloride	MW-5	10/10/2011		1.19	1.00	ug/L
Vinyl chloride	MW-5	4/18/2012		1.60	1.00	ug/L
Vinyl chloride	MW-5	10/10/2012		1.41	1.00	ug/L
Vinyl chloride	MW-5	4/12/2017		1.10	1.00	ug/L
Vinyl chloride	MW-5	4/03/2023		1.20	1.00	ug/L
Vinyl chloride	MW-5	4/01/2025		1.30	1.00	ug/L
Xylenes, total	MW-5	4/18/2012		.98	.10	ug/L
Xylenes, total	MW-5	4/23/2013		19.30	1.00	ug/L
Xylenes, total	MW-5	4/23/2014		11.10	1.00	ug/L
Xylenes, total	MW-5	4/29/2015		10.40	1.00	ug/L
Xylenes, total	MW-5	4/11/2018		23.50	2.00	ug/L
Xylenes, total	MW-5	4/12/2021		2.80	2.00	ug/L
Xylenes, total	MW-5	4/14/2022		6.70	2.00	ug/L
Xylenes, total	MW-5	4/01/2025		2.20	2.00	ug/L
1,4-dichlorobenzene	MW-6	4/18/2019		2.6	1.0	ug/L
Tetrachloroethylene	MW-6	10/31/2013		3.76	1.00	ug/L
Carbon disulfide	MW-7	10/17/2007		8.65	.10	ug/L
Carbon disulfide	MW-7	10/24/2014		1.54	.10	ug/L
Carbon disulfide	MW-8	4/16/2013		1.58	1.00	ug/L
Carbon disulfide	MW-8	10/27/2014		1.03	1.00	ug/L
1,1-dichloroethane	MW-9	10/11/2012		3.32	1.00	ug/L
1,1-dichloroethane	MW-9	10/29/2013		2.21	1.00	ug/L
Acetone	MW-9	10/21/2008		16.3	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-9	4/11/2018		6	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-9	10/16/2019		12	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-9	4/12/2021		6	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-9	10/25/2022		6	6	ug/L
Carbon disulfide	MW-9	10/11/2012		.43	.10	ug/L
Cis-1,2-dichloroethylene	MW-9	10/11/2012		1.23	1.00	ug/L
Hexachlorobenzene	MW-9	4/11/2018		.12	.05	ug/L
Vinyl chloride	MW-9	10/11/2012		1.1	1.0	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Attachment E

Assessment Statistics for Detected VOCs

Table 1

**Confidence Intervals for Comparing the Mean of the Last
4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
1,1-dichloroethane	ug/L	MW-5	4	3.250	4.440	1.176	0.000	8.472	140.000	inc
1,4-dichlorobenzene	ug/L	MW-5	4	0.675	0.350	1.176	0.263	1.087	75.000	
2-butanone	ug/L	MW-5	4	5.025	5.050	1.176	0.000	10.965	4000.000	
Acetone	ug/L	MW-5	4	58.000	106.000	1.176	0.000	182.687	6300.000	
Benzene	ug/L	MW-5	4	5.150	1.498	1.176	3.388	6.912	5.000	
Chlorobenzene	ug/L	MW-5	4	1.125	0.629	1.176	0.385	1.865	100.000	
Chloroethane	ug/L	MW-5	4	5.675	2.117	1.176	3.185	8.165	2800.000	
Cis-1,2-dichloroethylene	ug/L	MW-5	4	1.475	0.479	1.176	0.912	2.038	70.000	
Ethylbenzene	ug/L	MW-5	4	2.050	3.100	1.176	0.000	5.696	700.000	
Toluene	ug/L	MW-5	4	0.950	0.900	1.176	0.000	2.009	1000.000	
Vinyl chloride	ug/L	MW-5	4	0.700	0.400	1.176	0.229	1.171	2.000	
Xylenes, total	ug/L	MW-5	4	1.300	0.600	1.176	0.594	2.006	10000.000	

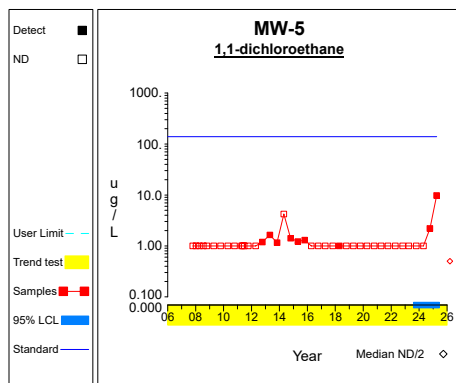
* - Insufficient Data

** - Significant Exceedance

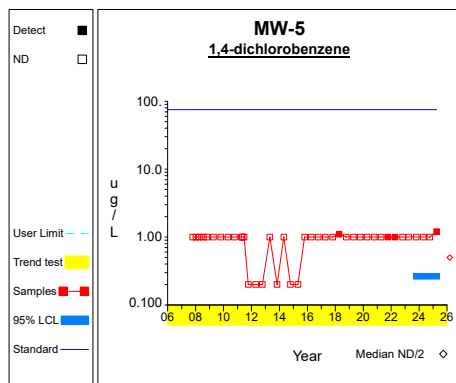
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

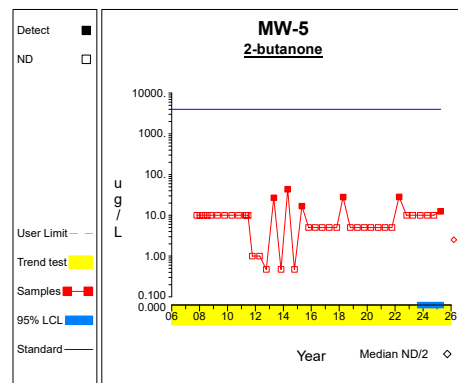
Confidence Limits (Assessment)



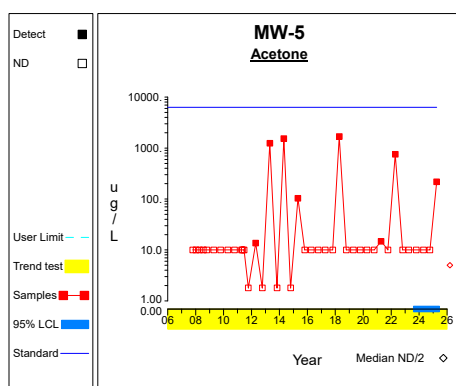
Graph 1



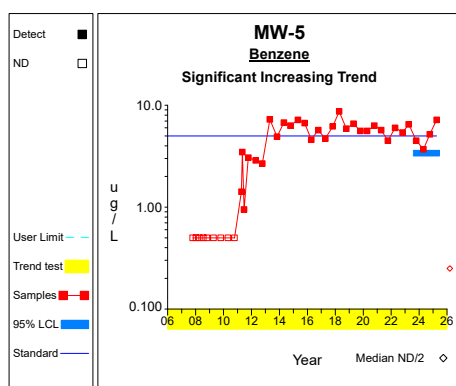
Graph 2



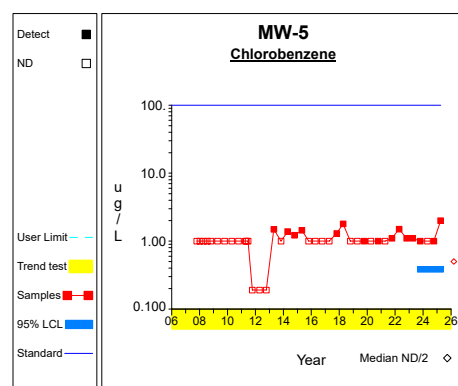
Graph 3



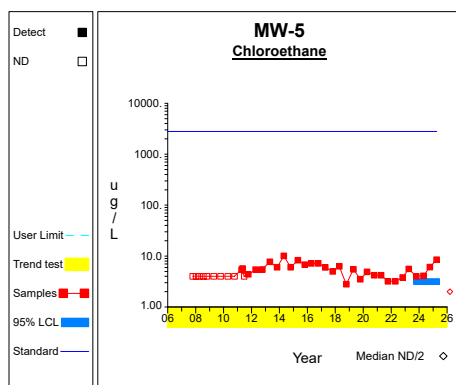
Graph 4



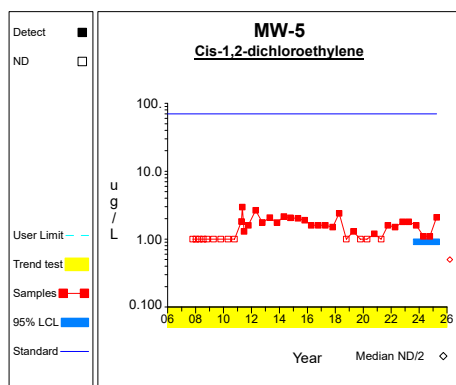
Graph 5



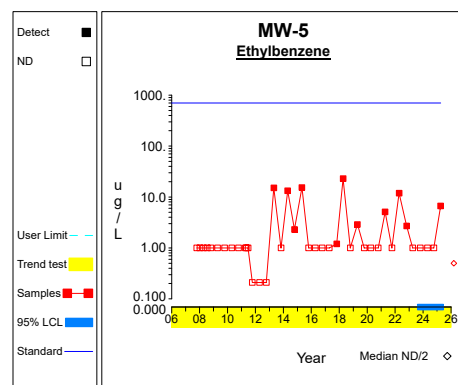
Graph 6



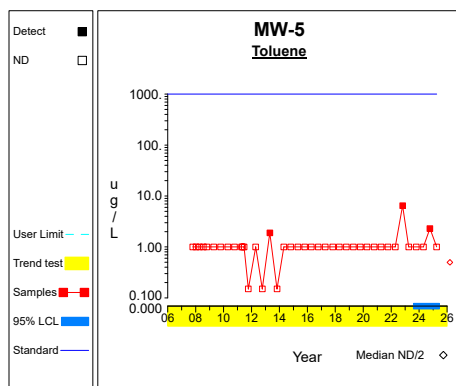
Graph 7



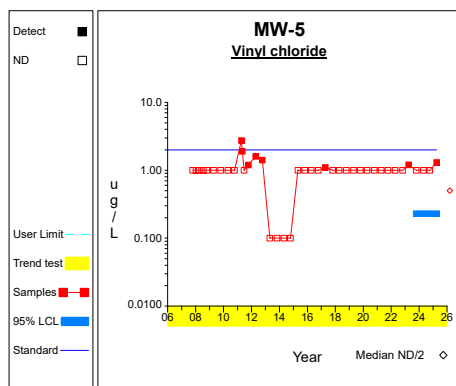
Graph 8



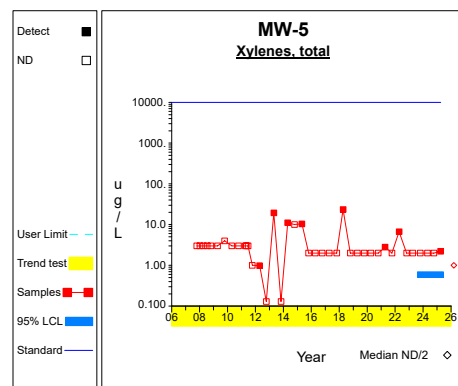
Graph 9



Graph 10



Graph 11



Graph 12

Table 1

**Confidence Intervals for Comparing the Mean of the Last
4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
1,1-dichloroethane	ug/L	MW-24	4	1.050	0.640	1.176	0.297	1.803	140.000	
Benzene	ug/L	MW-24	4	1.025	0.709	1.176	0.191	1.859	5.000	
Vinyl chloride	ug/L	MW-24	4	1.225	0.862	1.176	0.211	2.239	2.000	

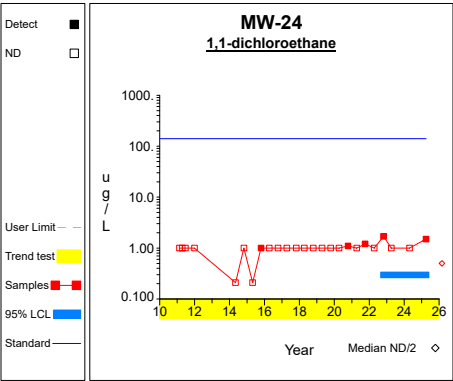
* - Insufficient Data

** - Significant Exceedance

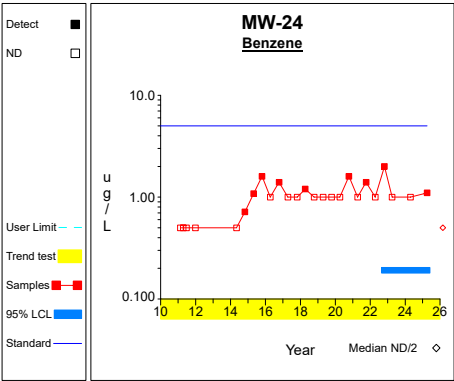
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

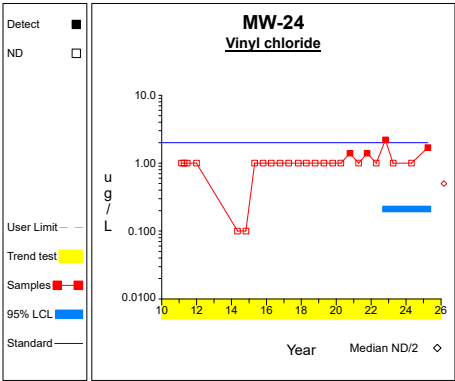
Confidence Limits (Assessment)



Graph 1



Graph 2



Graph 3

Attachment F

Assessment Statistics for Detected Trace Metals

Table 1

**Confidence Intervals for Comparing the Mean of the Last
4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Arsenic, total	ug/L	MW-5	4	12.650	2.053	1.176	10.235	15.065	10.000		**
Barium, total	ug/L	MW-5	4	559.500	247.861	1.176	267.944	851.056	2000.000		
Cobalt, total	ug/L	MW-5	4	0.900	0.356	1.176	0.481	1.319	2.100		
Zinc, total	ug/L	MW-5	4	9.100	1.800	1.176	6.983	11.217	2000.000		
Arsenic, total	ug/L	MW-7	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-7	4	43.400	10.964	1.176	30.503	56.297	2000.000	dec	
Cobalt, total	ug/L	MW-7	4	0.350	0.300	1.176	0.000	0.703	2.100		
Zinc, total	ug/L	MW-7	4	17.700	14.546	1.176	0.589	34.811	2000.000	dec	

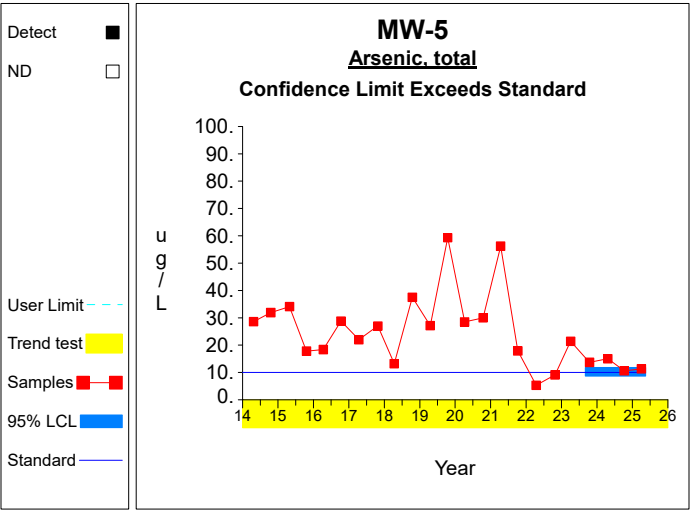
* - Insufficient Data

** - Significant Exceedance

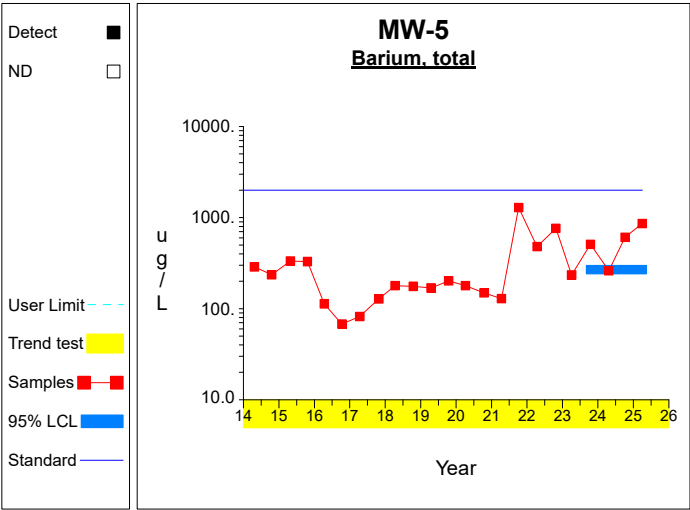
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

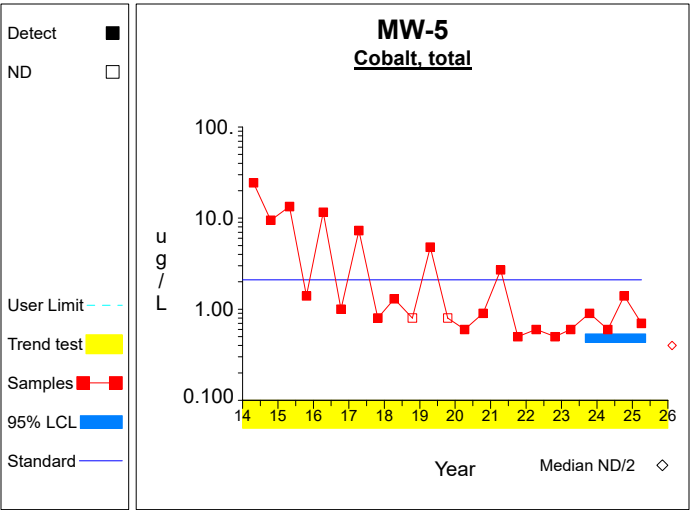
Confidence Limits (Assessment)



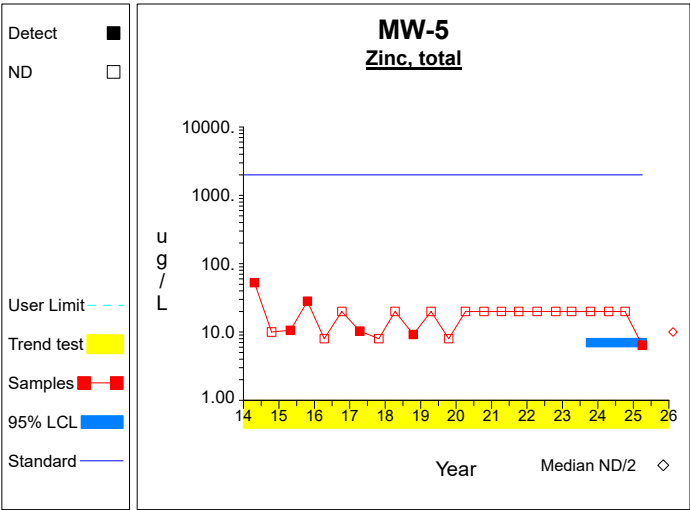
Graph 1



Graph 2

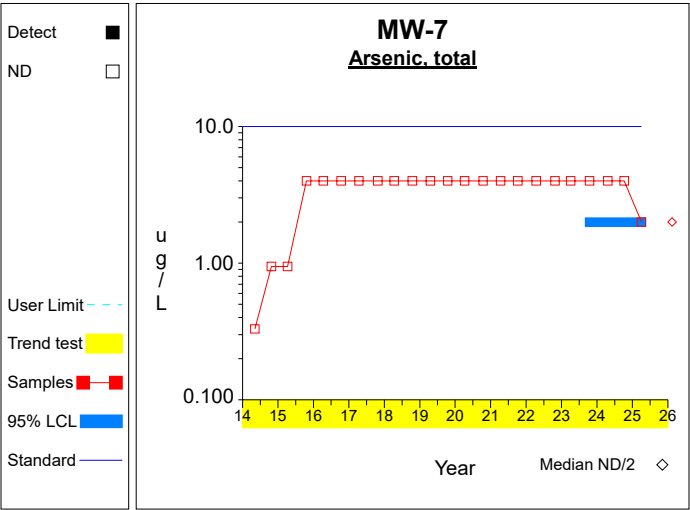


Graph 3

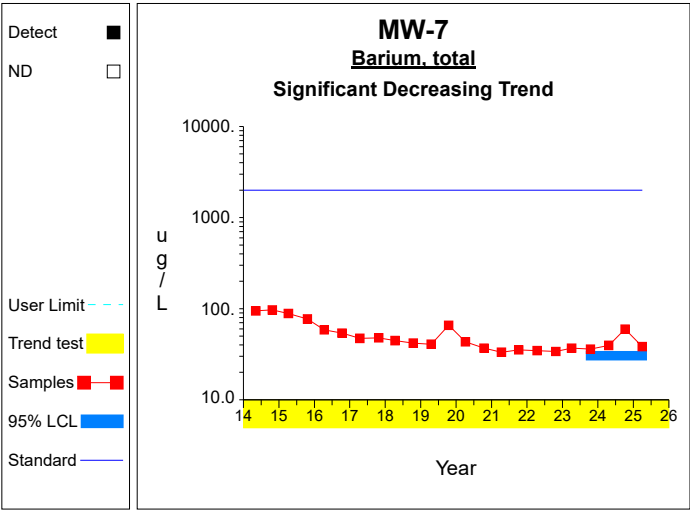


Graph 4

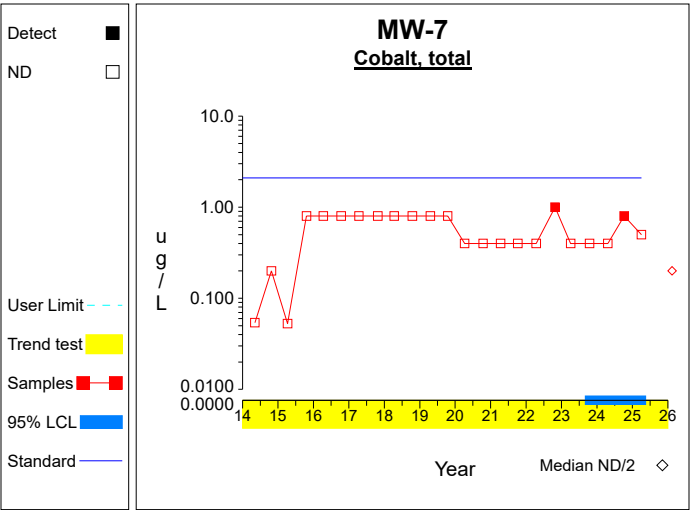
Confidence Limits (Assessment)



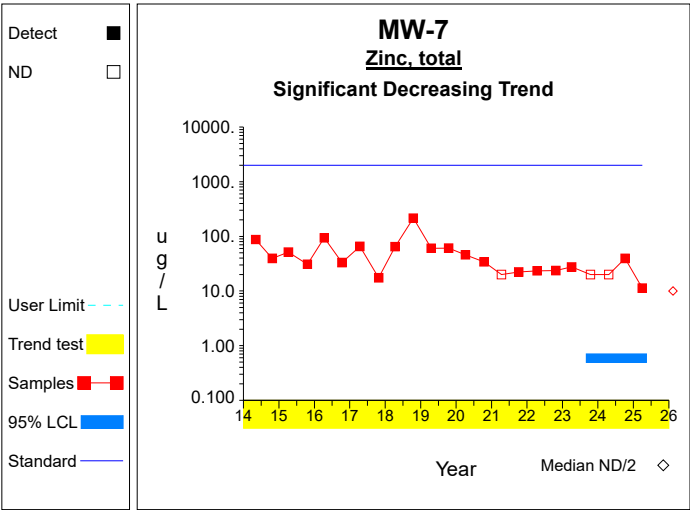
Graph 5



Graph 6



Graph 7



Graph 8

Appendix B.2 – Fall Statistical Evaluation Report

GROUND WATER STATISTICS

FOR THE

FAYETTE COUNTY SANITARY LANDFILL

Second Semi-Annual Monitoring Event in 2025

Prepared for:
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November 2025

INTRODUCTION

This report summarizes the results of the statistical analysis used to evaluate the ground water quality data obtained during the second semi-annual monitoring event in 2025 at the Fayette County Sanitary Landfill in Fayette County, Iowa. The statistical plan was designed to detect a release from the facility at the earliest indication so that it is protective of human health and the environment. The interwell methodology is described and then applied to the Fayette County Landfill data. The statistical plan conforms with IAC 567, Chapter 113.10, USEPA Guidance document (“*Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Unified Guidance*”, March 2009), and the American Society for Testing and Materials (ASTM) standard D6312-98, *Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs*.

Ground Water Monitoring Program

The groundwater monitoring network for Fayette County Landfill includes wells MW-12, MW-16, MW-17, MW-21, MW-24, MW-25, MW-26, MW-32, MW-33, MW-5, MW-7, and MW-9. Wells MW-32 and MW-33 replace MW-27 and MW-28 in the monitoring program. Each of the groundwater monitoring wells is to be sampled at least semiannually and analyzed for the detection monitoring parameters listed in 113.10(5), which includes 15 inorganic constituents and 47 organic compounds, summarized in Table 1 below.

Table 1: Detection monitoring constituents listed in Appendix I of IAC 567, Chapter 113.

Organic Compounds:

Acetone	<i>trans</i> -1,4-Dichloro-2-butene	Iodomethane
Acrylonitrile	1,1-Dichloroethane	4-Methyl-2-pentanone
Benzene	1,2-Dichloroethane	Styrene
Bromochloromethane	1,1-Dichloroethene	1,1,1,2-Tetrachloroethane
Bromodichloromethane	<i>cis</i> -1,2-Dichloroethene	1,1,2,2-Tetrachloroethane
Bromoform	<i>trans</i> -1,2-Dichloroethene	Tetrachloroethene
Carbon disulfide	1,2-Dichloropropane	Toluene
Carbon tetrachloride	<i>cis</i> -1,3-Dichloropropene	1,1,1-Trichloroethane
Chlorobenzene	<i>trans</i> -1,3-Dichloropropene	1,1,2-Trichloroethane
Chloroethane	Ethylbenzene	Trichloroethene
Chloroform	2-Hexanone	Trichlorofluoromethane
Dibromochloromethane	Bromomethane	1,2,3-Trichloropropane
1,2-Dibromo-3-chloropropane	Chloromethane	Vinyl acetate
1,2-Dibromoethane	Dibromomethane	Vinyl chloride
1,2-Dichlorobenzene	Methylene chloride	Xylenes (Total)
1,4-Dichlorobenzene	2-Butanone	

Inorganic constituents:

Antimony, Total	Chromium, Total	Selenium, Total
Arsenic, Total	Cobalt, Total	Silver, Total
Barium, Total	Copper, Total	Thallium, Total
Beryllium, Total	Lead, Total	Vanadium, Total
Cadmium, Total	Nickel, Total	Zinc, Total

The ground water data obtained during the second semi-annual monitoring event in 2025 are summarized in Attachment A.

STATISTICAL METHODOLOGIES FOR DETECTION MONITORING

IAC 567, Chapter 113.10(4) provides several options for statistically evaluating the ground water data at those wells that monitor the open cells or contiguous MSWLF units. The preferred methods for comparing ground water data are using either prediction limits or using control charts. The prediction limit method was applied to the Fayette County Landfill data using the DUMPStat[®] statistical program. Ground water statistics are to be done on the inorganic constituents listed. The organic constituents are compared to maximum contaminant levels (MCLs) or practical quantitation limits (PQLs), in lieu of statistical comparisons to historical concentrations.

Interwell Statistics: Upgradient versus Downgradient Comparisons

Interwell statistics are appropriate when the upgradient and downgradient wells monitor the same ground water formation and there is similar variability in the upgradient and downgradient zones. Site prediction limits are determined by pooling the historical ground water data from hydraulically upgradient wells. This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances. The type of prediction limit utilized (e.g., parametric or nonparametric) is based on the detection frequency and the data distribution of each parameter in the background data. The distribution of the background data is tested for normality using the Shapiro-Wilk test (Gibbons, 1994 and USEPA 1992). If the constituent is normally distributed, a normal prediction limit is used. If normality is rejected by the Shapiro-Wilk test, the background data is transformed by taking the natural logarithm. The Shapiro-Wilk test is then reapplied on the transformed data. If it is not rejected, lognormal prediction limits are used. If after transforming the data, normality is still rejected, nonparametric prediction limits are used for that analyte. The nonparametric prediction limit is the largest determination in the background measurements. For constituents where the background detection frequency is greater than 0% but less than 50%, nonparametric prediction limits will be used. If the detection frequency is 0% after thirteen samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit.

Results of the Interwell Statistics – Shallow Zone

The previous background data used in the statistical analysis included the ground water data collected from ground water wells MW-12, MW-17, and MW-21 during the period from October 2007 through the current data. The October 2007, January 2008, and April 2008 data from wells MW-12 and MW-17 was excluded due to high levels of several metals. The October 2007 data from well MW-21 was excluded due to high levels of several metals. The background data used in this statistical analysis includes the ground water data collected from ground water wells MW-12, MW-17, and MW-21 during the period from October 2014 through the current data. A summary of the background data from monitoring wells MW-12, MW-17, and MW-21, used to determine the site prediction limits, is listed in Attachment B, Table 1 “Upgradient Data”. This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances.

Table 2 “Most Current Downgradient Monitoring Data”, summarizes the current data from downgradient wells MW-9, MW-16, MW-24, MW-25, MW-26, MW-32, and MW-33, compared to the site prediction limits. Prediction limit exceedances are flagged with asterisks. For the most current data, the site prediction limit exceedances detected are summarized in the Table below.

Summary of Prediction Limit Exceedances for the Second Semi-Annual Monitoring Event in 2025

Well	Trace Metal	Result	Prediction Limit	Prediction Limit Type	Verified or Awaiting Verification
MW-24	Arsenic, µg/L	18.5	4.0000	Nonparametric	Verified
	Barium, µg/L	614	270.5859	Lognormal	Verified
	Cobalt, µg/L	3.9	0.7000	Nonparametric	Verified
	Nickel, µg/L	46.3	11.6000	Nonparametric	Verified
MW-26	Cobalt, µg/L	7.3	0.7000	Nonparametric	Verified
	Zinc, µg/L	21.5	20.8000	Nonparametric	Awaiting Verification
MW-32	Barium, µg/L	305	270.5859	Lognormal	Verified
MW-33	Cobalt, µg/L	3.5	0.7000	Nonparametric	Verified
MW-9	Arsenic, µg/L	7.0	4.0000	Nonparametric	Verified
	Barium, µg/L	399	270.5859	Lognormal	Verified
	Cobalt, µg/L	1.1	0.7000	Nonparametric	Verified

The detection frequencies of the parameters in the up and down gradient monitoring wells are summarized in Table 3. With the exception of barium, these constituents are rarely detected in the upgradient wells. With the detection frequencies being less than 50% for all but barium, nonparametric site prediction limits are used for those trace metals.

Table 4 summarizes the results of the Shapiro-Wilk test. Table 5 is a summary of the statistics and prediction limits determined for the metals. Time series graphs of each of the parameters at each well with the corresponding prediction limits are attached.

A statistical power curve indicates the expected false assessments for the site as a whole. The false positive rate for interwell analyses is the percentage of failures when the upgradient versus downgradient true mean difference equals zero. False negative rate indicates the chance of missing contamination at a single well for a single constituent. The statistical power is a function of the number of wells included, the number of constituents compared, the detection frequencies, and the data distributions involved. For interwell analysis, the site-wide false positive rate is 1% and the test becomes sensitive to 4 standard deviation unit increases over background.

The verified exceedances were evaluated against the ground water protection standards (GWPS) using confidence limits (Attachment C). The 95% lower confidence limit (LCL) for the mean of the historical data was used to evaluate whether the regulated unit is in compliance with the ground-water protection standards under 40 CFR 264 (e.g. whether the verified constituent is detected at a significant level above the GWPS). An exceedance is verified if the LCL is above the Regulatory GWPS.

The calculated 95% LCLs are below the respective GWPS.

Volatile Organic Compounds

Volatile Organic Compounds (VOCs) are generally man-made compounds not present in ambient ground water. If VOCs are detected above their statistical limit (i.e., the laboratory PQL or reporting limit), a verification resample will be conducted at the next scheduled sampling event. A statistical exceedance will be indicated if the VOC detection is confirmed by the subsequent monitoring. VOCs detected in the ground water at Fayette County Landfill during the second semi-annual monitoring event in 2025 are summarized below.

Organic compounds detected during the second semi-annual monitoring event in 2025

Well	VOC Detected	Result, µg/L	Reporting Limit, µg/L	Verified/ Awaiting Verification	Groundwater Standard, µg/L
MW-24	1,1-Dichloroethane	1.4	1	Verified	140 ^b
	Benzene	2.2	1	Verified	5 ^a
	Chloroethane	1.2	1	Awaiting Verification	2800 ^b
	Vinyl chloride	2.8	1	Verified	2 ^a
MW-5	1,1-Dichloroethane	4.3	1	Verified	140 ^b
	1,4-Dichlorobenzene	1.1	1	Verified	75 ^a
	Benzene	7.0	1	Verified	5 ^a
	Chlorobenzene	1.6	1	Verified	100 ^a
	Chloroethane	7.9	1	Verified	2800 ^b
	cis-1,2-Dichloroethene	2.0	1	Verified	70 ^a
	Ethylbenzene	2.6	1	Verified	700 ^a
	Methane	3810	125	Verified	
	Toluene	2.2	1	Awaiting Verification	1000 ^a
MW-9	Carbon disulfide	1.2	1	Awaiting Verification	700 ^b

a - USEPA MCL

b – Iowa Statewide Standard

Historical VOC detections are summarized in Attachment D. The verified VOC detections at MW-24 were evaluated against the GWPS using confidence limits (Attachment E). The 95% LCLs for the verified VOC detections are below the respective ground water standards.

Monitoring well MW-5 is currently in assessment monitoring because of the previous occurrences of VOCs.

Assessment Wells

In addition to VOCs, monitoring wells MW-5 and MW-7 are in assessment from prior trace metals detected. The verified trace metal exceedances and VOCs were evaluated against the ground water protection standards (GWPS) using confidence limits (Attachment F). The 95% lower confidence limit (LCL) for the mean of the historical data was used to evaluate whether the regulated unit is in compliance with the ground-

water protection standards under 40 CFR 264 (e.g. whether the verified constituent is detected at a significant level above the GWPS). An exceedance is verified if the LCL is above the Regulatory GWPS. The 95% LCLs for the trace metal and VOC detections at MW-5 and MW-7 are below the respective ground water standards.

Attachment A

Summary of the Data obtained during the Second Semi-Annual Monitoring Event in 2025

Table 1

Analytical Data Summary for 10/13/2025

Constituents	Units	MW-12	MW-16	MW-17	MW-21	MW-24	MW-25	MW-26	MW-32	MW-33	MW-5	MW-7	MW-9
(3,4)-methylphenol	ug/L										<8	<8	
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1.0	<1.0	<1.0		1.4	<1.0	<1.0	<1.0	<1.0	4.3	<1.0	<1.0
1,1-dichloroethylene	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	ug/L										<1	<1	
1,2,3-trichloropropane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L										<8	<8	
1,2,4-trichlorobenzene	ug/L										<1	<1	
1,2-dibromo-3-chloropropane	ug/L	<5	<5	<5		<5	<5	<5	<5	<5	<1	<1	<5
1,2-dibromoethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L										<8	<8	
1,3,5-trinitrobenzene	ug/L										<8	<8	
1,3-dichlorobenzene	ug/L										<1	<1	
1,3-dichloropropane	ug/L										<1	<1	
1,3-dinitrobenzene	ug/L										<8	<8	
1,4-dichlorobenzene	ug/L	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0
1,4-naphthoquinone	ug/L										<8	<8	
1,4-phenylenediamine	ug/L										<8	<8	
1-naphthylamine	ug/L										<8	<8	
2,2-dichloropropane	ug/L										<1	<1	
2,3,4,6-tetrachlorophenol	ug/L										<8	<8	
2,4,5-t	ug/L										<5	<5	
2,4,5-tp (silvex)	ug/L										<5	<5	
2,4,5-trichlorophenol	ug/L										<8	<8	
2,4,6-trichlorophenol	ug/L										<8	<8	
2,4-d	ug/L										<1	<1	
2,4-dichlorophenol	ug/L										<8	<8	
2,4-dimethylphenol	ug/L										<8	<8	
2,4-dinitrophenol	ug/L										<8	<8	
2,4-dinitrotoluene	ug/L										<8	<8	
2,6-dichlorophenol	ug/L										<8	<8	
2,6-dinitrotoluene	ug/L										<8	<8	
2-acetylaminofluorene	ug/L										<8	<8	
2-butanone	ug/L	<10	<10	<10		<10	<10	<10	<10	<10	<5	<5	<10
2-chloronaphthalene	ug/L										<8	<8	
2-chlorophenol	ug/L										<8	<8	
2-hexanone	ug/L	<5	<5	<5		<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene	ug/L										<8	<8	
2-methylphenol (o-cresol)	ug/L										<8	<8	
2-naphthylamine	ug/L										<8	<8	
2-nitroaniline	ug/L										<8	<8	
2-nitrophenol	ug/L										<8	<8	
3,3'-dichlorobenzidine	ug/L										<8	<8	
3,3'-dimethylbenzidine	ug/L										<8	<8	
3-methylcholanthrene	ug/L										<8	<8	
3-nitroaniline	ug/L										<8	<8	
4,4'-ddd	ug/L										<.05	<.05	
4,4'-dde	ug/L										<.05	<.05	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for 10/13/2025

Constituents	Units	MW-12	MW-16	MW-17	MW-21	MW-24	MW-25	MW-26	MW-32	MW-33	MW-5	MW-7	MW-9
4,4'-ddt	ug/L										<.05	<.05	
4,6-dinitro-2-methylphenol	ug/L										<.8	<.8	
4-aminobiphenyl	ug/L										<.8	<.8	
4-bromophenyl phenyl ether	ug/L										<.8	<.8	
4-chloro-3-methylphenol	ug/L										<.8	<.8	
4-chloroaniline	ug/L										<.8	<.8	
4-chlorophenyl phenyl ether	ug/L										<.8	<.8	
4-methyl-2-pentanone	ug/L	<5	<5	<5		<5	<5	<5	<5	<5	<.5	<.5	<5
4-nitroaniline	ug/L										<.8	<.8	
4-nitrophenol	ug/L										<.8	<.8	
5-nitro-o-toluidine	ug/L										<.8	<.8	
7,12-dimethylbenz [a] anthracene	ug/L										<.8	<.8	
Acenaphthene	ug/L										<.8	<.8	
Acenaphthylene	ug/L										<.8	<.8	
Acetone	ug/L	<10	<10	<10		<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile	ug/L										<10	<10	
Acetophenone	ug/L										<.8	<.8	
Acrolein	ug/L										<10	<10	
Acrylonitrile	ug/L	<5	<5	<5		<5	<5	<5	<5	<5	<.5	<.5	<5
Aldrin	ug/L										<.05	<.05	
Alkalinity, as CaCO3	mg/L										658		
Allyl chloride	ug/L										<1	<1	
Alpha-bhc	ug/L										<.05	<.05	
Anthracene	ug/L										<.8	<.8	
Antimony, total	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Arochlor 1016	ug/L										<.2	<.2	
Arochlor 1221	ug/L										<.2	<.2	
Arochlor 1232	ug/L										<.2	<.2	
Arochlor 1242	ug/L										<.2	<.2	
Arochlor 1248	ug/L										<.2	<.2	
Arochlor 1254	ug/L										<.2	<.2	
Arochlor 1260	ug/L										<.2	<.2	
Arsenic, total	ug/L	<2.0	<2.0	<2.0	<2.0	18.5	<2.0	<2.0	3.8	<2.0	10.3	<2.0	7.0
Azobenzene	ug/L										<.8	<.8	
Barium, total	ug/L	105.0	162.0	108.0	39.4	614.0	41.5	42.9	305.0	243.0	1320.0	40.5	399.0
Benzene	ug/L	<1.0	<1.0	<1.0		2.2	<1.0	<1.0	<1.0	<1.0	7.0	<1.0	<1.0
Benzo(a)anthracene	ug/L										<.8	<.8	
Benzo(a)pyrene	ug/L										<.8	<.8	
Benzo(b)fluoranthene	ug/L										<.8	<.8	
Benzo(g,h,i)perylene	ug/L										<.8	<.8	
Benzo(k)fluoranthene	ug/L										<.8	<.8	
Benzyl alcohol	ug/L										<.8	<.8	
Beryllium, total	ug/L	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Beta-bhc	ug/L										<.05	<.05	
Bis (2-chloroethoxy) methane	ug/L										<.8	<.8	
Bis(2-chloroethyl) ether	ug/L										<.8	<.8	
Bis(2-ethylhexyl) phthalate	ug/L										<.6	<.6	
Bis[2-chloroisopropyl]ether	ug/L										<.8	<.8	
Bromochloromethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate	ug/L										<.8	<.8	
Cadmium, total	ug/L	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	.5	.2	<.2

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for 10/13/2025

Constituents	Units	MW-12	MW-16	MW-17	MW-21	MW-24	MW-25	MW-26	MW-32	MW-33	MW-5	MW-7	MW-9
Carbon disulfide	ug/L	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2
Carbon tetrachloride	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Chlordane	ug/L										<1	<1	
Chlorobenzene	ug/L	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0
Chlorobenzilate	ug/L										<8	<8	
Chloroethane	ug/L	<1.0	<1.0	<1.0		1.2	<1.0	<1.0	<1.0	<1.0	7.9	<1.0	<1.0
Chloroform	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene	ug/L										<1	<1	
Chromium, total	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	1	1	<1	<1
Chrysene	ug/L										<8	<8	
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	2	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<.5	<.5	<.5	.5	3.9	.6	7.3	<.5	3.5	.7	1.0	1.1
Copper, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cyanide, total	mg/L										<.01	<.01	
Delta-bhc	ug/L										<.05	<.05	
Diallate	ug/L										<8	<8	
Dibenzo(a,h)anthracene	ug/L										<8	<8	
Dibenzofuran	ug/L										<8	<8	
Dibromochloromethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L										<1	<1	
Dieldrin	ug/L										<.05	<.05	
Diethyl phthalate	ug/L										<8	<8	
Dimethoate	ug/L										<.4	<.4	
Dimethylphthalate	ug/L										<8	<8	
Di-n-butyl phthalate	ug/L										<8	<8	
Di-n-octyl phthalate	ug/L										<8	<8	
Dinoseb	ug/L										<.5	<.5	
Diphenylamine	ug/L										<8	<8	
Disulfoton	ug/L										<.4	<.4	
Endosulfan i	ug/L										<.05	<.05	
Endosulfan ii	ug/L										<.05	<.05	
Endosulfan sulfate	ug/L										<.05	<.05	
Endrin	ug/L										<.05	<.05	
Endrin aldehyde	ug/L										<.05	<.05	
Ethane	ug/L										<5	<5	
Ethene	ug/L										<5	<5	
Ethyl methacrylate	ug/L										<10	<10	
Ethyl methanesulfonate	ug/L										<8	<8	
Ethylbenzene	ug/L	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	2.6	<1.0	<1.0
Famphur	ug/L										<.4	<.4	
Fluoranthene	ug/L										<8	<8	
Fluorene	ug/L										<8	<8	
Gamma-bhc [lindane]	ug/L										<.05	<.05	
Heptachlor	ug/L										<.05	<.05	
Heptachlor epoxide	ug/L										<.05	<.05	
Hexachlorobenzene	ug/L										<.05	<.05	
Hexachlorobutadiene	ug/L										<8	<8	
Hexachlorocyclopentadiene	ug/L										<8	<8	
Hexachloroethane	ug/L										<8	<8	
Hexachloropropene	ug/L										<8	<8	
Indeno(1,2,3-cd)pyrene	ug/L										<8	<8	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for 10/13/2025

Constituents	Units	MW-12	MW-16	MW-17	MW-21	MW-24	MW-25	MW-26	MW-32	MW-33	MW-5	MW-7	MW-9
Iodomethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<2	<2	<1
Isobutanol	mg/L										<1	<1	
Isodrin	ug/L										<8	<8	
Isophorone	ug/L										<8	<8	
Isosafrole	ug/L										<8	<8	
Kepone	ug/L										<8	<8	
Lead, total	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Mercury, total	ug/L										<5	<5	
Methacrylonitrile	ug/L										<1	<1	
Methane	ug/L										3810		
Methapyrilene	ug/L										<8	<8	
Methoxychlor	ug/L										<.05	<.05	
Methyl methacrylate	ug/L										<1	<1	
Methyl methanesulfonate	ug/L										<8	<8	
Methyl parathion	ug/L										<4	<4	
Methylene chloride	ug/L	<5	<5	<5		<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	ug/L										<8	<8	
Nickel, total	ug/L	<5.0	<5.0	<5.0	<5.0	46.3	6.0	7.9	<5.0	7.6	<5.0	13.2	<5.0
Nitrobenzene	ug/L										<8	<8	
N-nitrosodiethylamine	ug/L										<8	<8	
N-nitrosodimethylamine	ug/L										<8	<8	
N-nitrosodi-n-butylamine	ug/L										<8	<8	
N-nitroso-di-n-propylamine	ug/L										<8	<8	
N-nitrosodiphenylamine	ug/L										<8	<8	
N-nitrosomethylethylamine	ug/L										<8	<8	
N-nitrosopiperidine	ug/L										<8	<8	
N-nitrosopyrrolidine	ug/L										<8	<8	
O,o,o-triethyl phosphorothioate	ug/L										<4	<4	
O-toluidine	ug/L										<8	<8	
P-(dimethylamino)azobenzene	ug/L										<8	<8	
Parathion	ug/L										<4	<4	
Pentachlorobenzene	ug/L										<8	<8	
Pentachloronitrobenzene (pcnb)	ug/L										<8	<8	
Pentachlorophenol	ug/L										<8	<8	
pH	pH										6.3		
Phenacetin	ug/L										<8	<8	
Phenanthrene	ug/L										<8	<8	
Phenol	ug/L										<8	<8	
Phorate	ug/L										<4	<4	
Pronamide	ug/L										<8	<8	
Propionitrile	ug/L										<10	<10	
Pyrene	ug/L										<8	<8	
Safrole	ug/L										<8	<8	
Selenium, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Silver, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Styrene	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	mg/L										.35	<.10	
Tetrachloroethylene	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Thionazin	ug/L										<4	<4	
Tin, total	ug/L										<5	<5	
Toluene	ug/L	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	2.2	<1.0	<1.0
Toxaphene	ug/L										<2	<2	
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for 10/13/2025

Constituents	Units	MW-12	MW-16	MW-17	MW-21	MW-24	MW-25	MW-26	MW-32	MW-33	MW-5	MW-7	MW-9
Trans-1,3-dichloropropene	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5		<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	3.7	<2.0	<2.0
Vinyl acetate	ug/L	<5	<5	<5		<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1.0	<1.0	<1.0		2.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, total	ug/L	<2	<2	<2		<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	6.9	7.7	<5.0	<5.0	6.5	10.6	21.5	5.2	8.3	8.6	23.2	10.0

* - The displayed value is the arithmetic mean of multiple database matches.

Attachment B

Summary Tables and Graphs for the Interwell Comparisons – Shallow Zone

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, total	ug/L	MW-12	10/24/2014	ND	0.1610		*
Antimony, total	ug/L	MW-12	04/07/2015	ND	0.1610		*
Antimony, total	ug/L	MW-12	10/20/2015	ND	2.0000		
Antimony, total	ug/L	MW-12	04/11/2016	ND	2.0000		
Antimony, total	ug/L	MW-12	10/12/2016		6.2000		*
Antimony, total	ug/L	MW-12	04/13/2017	ND	2.0000		
Antimony, total	ug/L	MW-12	10/25/2017	ND	2.0000		
Antimony, total	ug/L	MW-12	04/11/2018	ND	2.0000		
Antimony, total	ug/L	MW-12	10/16/2018	ND	2.0000		
Antimony, total	ug/L	MW-12	04/17/2019	ND	2.0000		
Antimony, total	ug/L	MW-12	10/15/2019	ND	2.0000		
Antimony, total	ug/L	MW-12	04/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-12	10/13/2020	ND	2.0000		
Antimony, total	ug/L	MW-12	04/12/2021	ND	2.0000		
Antimony, total	ug/L	MW-12	10/06/2021	ND	2.0000		
Antimony, total	ug/L	MW-12	04/14/2022	ND	2.0000		
Antimony, total	ug/L	MW-12	10/25/2022	ND	2.0000		
Antimony, total	ug/L	MW-12	04/03/2023	ND	2.0000		
Antimony, total	ug/L	MW-12	10/16/2023	ND	2.0000		
Antimony, total	ug/L	MW-12	04/22/2024	ND	2.0000		
Antimony, total	ug/L	MW-12	10/07/2024	ND	2.0000		
Antimony, total	ug/L	MW-12	04/01/2025	ND	1.0000	2.0000	**
Antimony, total	ug/L	MW-12	10/13/2025	ND	1.0000	2.0000	**
Arsenic, total	ug/L	MW-12	10/24/2014	ND	0.9450		*
Arsenic, total	ug/L	MW-12	04/07/2015	ND	0.9450		*
Arsenic, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/01/2025	ND	2.0000	4.0000	**
Arsenic, total	ug/L	MW-12	10/13/2025	ND	2.0000	4.0000	**
Barium, total	ug/L	MW-12	10/24/2014		161.0000		
Barium, total	ug/L	MW-12	04/07/2015		159.0000		
Barium, total	ug/L	MW-12	10/20/2015		137.0000		
Barium, total	ug/L	MW-12	04/11/2016		174.0000		
Barium, total	ug/L	MW-12	10/12/2016		129.0000		
Barium, total	ug/L	MW-12	04/13/2017		212.0000		
Barium, total	ug/L	MW-12	10/25/2017		152.0000		
Barium, total	ug/L	MW-12	04/11/2018		190.0000		
Barium, total	ug/L	MW-12	10/16/2018		116.0000		
Barium, total	ug/L	MW-12	04/17/2019		205.0000		
Barium, total	ug/L	MW-12	10/15/2019		152.0000		
Barium, total	ug/L	MW-12	04/06/2020		108.0000		
Barium, total	ug/L	MW-12	10/13/2020		111.0000		
Barium, total	ug/L	MW-12	04/12/2021		90.8000		
Barium, total	ug/L	MW-12	10/06/2021		105.0000		
Barium, total	ug/L	MW-12	04/14/2022		90.2000		
Barium, total	ug/L	MW-12	10/25/2022		115.0000		
Barium, total	ug/L	MW-12	04/03/2023		99.6000		
Barium, total	ug/L	MW-12	10/16/2023		129.0000		
Barium, total	ug/L	MW-12	04/22/2024		110.0000		
Barium, total	ug/L	MW-12	10/07/2024		113.0000		
Barium, total	ug/L	MW-12	04/01/2025		116.0000		
Barium, total	ug/L	MW-12	10/13/2025		105.0000		
Beryllium, total	ug/L	MW-12	10/24/2014	ND	0.0390		*
Beryllium, total	ug/L	MW-12	04/07/2015	ND	0.0390		*
Beryllium, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/12/2016	ND	4.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/01/2025	ND	0.5000	4.0000	**
Beryllium, total	ug/L	MW-12	10/13/2025	ND	0.5000	4.0000	**
Cadmium, total	ug/L	MW-12	10/24/2014	ND	0.1120	0.8000	**
Cadmium, total	ug/L	MW-12	04/07/2015	ND	0.1120	0.8000	**
Cadmium, total	ug/L	MW-12	10/20/2015	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/11/2016	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/12/2016	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/13/2017	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/25/2017	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/11/2018	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/16/2018	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/17/2019	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/15/2019	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/13/2020	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/12/2021	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/06/2021	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/14/2022	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/25/2022	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/03/2023	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/16/2023	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/22/2024	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/07/2024	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/01/2025	ND	0.2000	0.8000	**
Cadmium, total	ug/L	MW-12	10/13/2025	ND	0.2000	0.8000	**
Chromium, total	ug/L	MW-12	10/24/2014	ND	1.2400	8.0000	**
Chromium, total	ug/L	MW-12	04/07/2015	ND	1.2400	8.0000	**
Chromium, total	ug/L	MW-12	10/20/2015	ND	8.0000		
Chromium, total	ug/L	MW-12	04/11/2016	ND	8.0000		
Chromium, total	ug/L	MW-12	10/12/2016	ND	8.0000		
Chromium, total	ug/L	MW-12	04/13/2017	ND	8.0000		
Chromium, total	ug/L	MW-12	10/25/2017	ND	8.0000		
Chromium, total	ug/L	MW-12	04/11/2018	ND	8.0000		
Chromium, total	ug/L	MW-12	10/16/2018	ND	8.0000		
Chromium, total	ug/L	MW-12	04/17/2019	ND	8.0000		
Chromium, total	ug/L	MW-12	10/15/2019	ND	8.0000		
Chromium, total	ug/L	MW-12	04/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-12	10/13/2020	ND	8.0000		
Chromium, total	ug/L	MW-12	04/12/2021	ND	8.0000		
Chromium, total	ug/L	MW-12	10/06/2021	ND	8.0000		
Chromium, total	ug/L	MW-12	04/14/2022	ND	8.0000		
Chromium, total	ug/L	MW-12	10/25/2022	ND	8.0000		
Chromium, total	ug/L	MW-12	04/03/2023	ND	8.0000		
Chromium, total	ug/L	MW-12	10/16/2023	ND	8.0000		
Chromium, total	ug/L	MW-12	04/22/2024	ND	8.0000		
Chromium, total	ug/L	MW-12	10/07/2024	ND	8.0000		
Chromium, total	ug/L	MW-12	04/01/2025	ND	1.1000		
Chromium, total	ug/L	MW-12	10/13/2025	ND	1.0000	8.0000	**
Cobalt, total	ug/L	MW-12	10/24/2014	ND	0.0528		*
Cobalt, total	ug/L	MW-12	04/07/2015	ND	0.0528		*
Cobalt, total	ug/L	MW-12	10/20/2015	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	04/11/2016	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	10/12/2016	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	04/13/2017	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	10/25/2017	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	04/11/2018	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	10/16/2018	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	04/17/2019	ND	0.8000	0.5000	**

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cobalt, total	ug/L	MW-12	10/15/2019	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-12	04/06/2020	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	10/13/2020	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	04/12/2021	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	10/06/2021	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	04/14/2022	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	10/25/2022	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	04/03/2023	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	10/16/2023		0.7000		
Cobalt, total	ug/L	MW-12	04/22/2024	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	10/07/2024	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-12	04/01/2025	ND	0.5000		
Cobalt, total	ug/L	MW-12	10/13/2025	ND	0.5000		
Copper, total	ug/L	MW-12	10/24/2014		5.7500		
Copper, total	ug/L	MW-12	04/07/2015	ND	0.4850		*
Copper, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Copper, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Copper, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Copper, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Copper, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Copper, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Copper, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Copper, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Copper, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Copper, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Copper, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Copper, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Copper, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Copper, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Copper, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Copper, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Copper, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Copper, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Copper, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Copper, total	ug/L	MW-12	04/01/2025	ND	5.0000	4.0000	**
Copper, total	ug/L	MW-12	10/13/2025	ND	5.0000	4.0000	**
Lead, total	ug/L	MW-12	10/24/2014	ND	0.0967		
Lead, total	ug/L	MW-12	04/07/2015	ND	0.0967		*
Lead, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Lead, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Lead, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Lead, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Lead, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Lead, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Lead, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Lead, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Lead, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Lead, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Lead, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Lead, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Lead, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Lead, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Lead, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Lead, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Lead, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Lead, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Lead, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Lead, total	ug/L	MW-12	04/01/2025	ND	1.0000	4.0000	**
Lead, total	ug/L	MW-12	10/13/2025	ND	1.0000	4.0000	**
Nickel, total	ug/L	MW-12	10/24/2014	ND	1.0000		
Nickel, total	ug/L	MW-12	04/07/2015	ND	0.5810		*
Nickel, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Nickel, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Nickel, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Nickel, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Nickel, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Nickel, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Nickel, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Nickel, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Nickel, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Nickel, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Nickel, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Nickel, total	ug/L	MW-12	10/06/2021	ND	4.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Nickel, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Nickel, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Nickel, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Nickel, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Nickel, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Nickel, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Nickel, total	ug/L	MW-12	04/01/2025	ND	5.0000	4.0000	**
Nickel, total	ug/L	MW-12	10/13/2025	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-12	10/24/2014	ND	3.3400	4.0000	**
Selenium, total	ug/L	MW-12	04/07/2015	ND	3.3400	4.0000	**
Selenium, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Selenium, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Selenium, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Selenium, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Selenium, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Selenium, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Selenium, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Selenium, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Selenium, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Selenium, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Selenium, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Selenium, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Selenium, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Selenium, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Selenium, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Selenium, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Selenium, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Selenium, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Selenium, total	ug/L	MW-12	04/01/2025	ND	2.0000	4.0000	**
Selenium, total	ug/L	MW-12	10/13/2025	ND	2.0000	4.0000	**
Silver, total	ug/L	MW-12	10/24/2014	ND	0.0420		*
Silver, total	ug/L	MW-12	04/07/2015	ND	0.0420		*
Silver, total	ug/L	MW-12	10/20/2015	ND	4.0000		
Silver, total	ug/L	MW-12	04/11/2016	ND	4.0000		
Silver, total	ug/L	MW-12	10/12/2016	ND	4.0000		
Silver, total	ug/L	MW-12	04/13/2017	ND	4.0000		
Silver, total	ug/L	MW-12	10/25/2017	ND	4.0000		
Silver, total	ug/L	MW-12	04/11/2018	ND	4.0000		
Silver, total	ug/L	MW-12	10/16/2018	ND	4.0000		
Silver, total	ug/L	MW-12	04/17/2019	ND	4.0000		
Silver, total	ug/L	MW-12	10/15/2019	ND	4.0000		
Silver, total	ug/L	MW-12	04/06/2020	ND	4.0000		
Silver, total	ug/L	MW-12	10/13/2020	ND	4.0000		
Silver, total	ug/L	MW-12	04/12/2021	ND	4.0000		
Silver, total	ug/L	MW-12	10/06/2021	ND	4.0000		
Silver, total	ug/L	MW-12	04/14/2022	ND	4.0000		
Silver, total	ug/L	MW-12	10/25/2022	ND	4.0000		
Silver, total	ug/L	MW-12	04/03/2023	ND	4.0000		
Silver, total	ug/L	MW-12	10/16/2023	ND	4.0000		
Silver, total	ug/L	MW-12	04/22/2024	ND	4.0000		
Silver, total	ug/L	MW-12	10/07/2024	ND	4.0000		
Silver, total	ug/L	MW-12	04/01/2025	ND	5.0000	4.0000	**
Silver, total	ug/L	MW-12	10/13/2025	ND	5.0000	4.0000	**
Thallium, total	ug/L	MW-12	10/24/2014	ND	0.0325		*
Thallium, total	ug/L	MW-12	04/07/2015	ND	0.0325		*
Thallium, total	ug/L	MW-12	10/20/2015	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/11/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/12/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/13/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/25/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/11/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/16/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/17/2019	ND	2.0000		
Thallium, total	ug/L	MW-12	10/15/2019	ND	2.0000		
Thallium, total	ug/L	MW-12	04/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-12	10/13/2020	ND	2.0000		
Thallium, total	ug/L	MW-12	04/12/2021	ND	2.0000		
Thallium, total	ug/L	MW-12	10/06/2021	ND	2.0000		
Thallium, total	ug/L	MW-12	04/14/2022	ND	2.0000		
Thallium, total	ug/L	MW-12	10/25/2022	ND	2.0000		
Thallium, total	ug/L	MW-12	04/03/2023	ND	2.0000		
Thallium, total	ug/L	MW-12	10/16/2023	ND	2.0000		
Thallium, total	ug/L	MW-12	04/22/2024	ND	2.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Thallium, total	ug/L	MW-12	10/07/2024	ND	2.0000		
Thallium, total	ug/L	MW-12	04/01/2025	ND	0.5000	2.0000	**
Thallium, total	ug/L	MW-12	10/13/2025	ND	0.5000	2.0000	**
Vanadium, total	ug/L	MW-12	10/24/2014	ND	1.0000	20.0000	**
Vanadium, total	ug/L	MW-12	04/07/2015	ND	0.4490	20.0000	**
Vanadium, total	ug/L	MW-12	10/20/2015	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/11/2016	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/12/2016	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/13/2017	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/25/2017	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/11/2018	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/16/2018	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/17/2019	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/15/2019	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/13/2020	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/12/2021	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/06/2021	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/14/2022	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/25/2022	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/03/2023	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/16/2023	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/22/2024	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/07/2024	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/01/2025	ND	2.0000	20.0000	**
Vanadium, total	ug/L	MW-12	10/13/2025	ND	2.0000	20.0000	**
Zinc, total	ug/L	MW-12	10/24/2014	ND	6.9500	20.0000	**
Zinc, total	ug/L	MW-12	04/07/2015	ND	6.9500	20.0000	**
Zinc, total	ug/L	MW-12	10/20/2015	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	04/11/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	10/12/2016	ND	20.0000		
Zinc, total	ug/L	MW-12	04/13/2017		8.0000		
Zinc, total	ug/L	MW-12	10/25/2017		8.9000		
Zinc, total	ug/L	MW-12	04/11/2018	ND	20.0000		
Zinc, total	ug/L	MW-12	10/16/2018		16.6000		
Zinc, total	ug/L	MW-12	04/17/2019	ND	20.0000		
Zinc, total	ug/L	MW-12	10/15/2019	ND	20.0000		
Zinc, total	ug/L	MW-12	04/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-12	10/13/2020	ND	20.0000		
Zinc, total	ug/L	MW-12	04/12/2021	ND	20.0000		
Zinc, total	ug/L	MW-12	10/06/2021	ND	20.0000		
Zinc, total	ug/L	MW-12	04/14/2022	ND	20.0000		
Zinc, total	ug/L	MW-12	10/25/2022	ND	20.0000		
Zinc, total	ug/L	MW-12	04/03/2023	ND	20.0000		
Zinc, total	ug/L	MW-12	10/16/2023	ND	20.0000		
Zinc, total	ug/L	MW-12	04/22/2024	ND	20.0000		
Zinc, total	ug/L	MW-12	10/07/2024	ND	20.0000		
Zinc, total	ug/L	MW-12	04/01/2025		5.4000		
Zinc, total	ug/L	MW-12	10/13/2025		6.9000		
Antimony, total	ug/L	MW-17	10/24/2014	ND	0.5410	2.0000	**
Antimony, total	ug/L	MW-17	04/07/2015	ND	0.1610		*
Antimony, total	ug/L	MW-17	10/20/2015	ND	2.0000		
Antimony, total	ug/L	MW-17	04/11/2016	ND	2.0000		
Antimony, total	ug/L	MW-17	10/12/2016	ND	2.0000		
Antimony, total	ug/L	MW-17	04/13/2017	ND	2.0000		
Antimony, total	ug/L	MW-17	10/25/2017	ND	2.0000		
Antimony, total	ug/L	MW-17	04/11/2018	ND	2.0000		
Antimony, total	ug/L	MW-17	10/16/2018	ND	2.0000		
Antimony, total	ug/L	MW-17	04/17/2019	ND	2.0000		
Antimony, total	ug/L	MW-17	10/15/2019	ND	2.0000		
Antimony, total	ug/L	MW-17	04/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-17	10/13/2020	ND	2.0000		
Antimony, total	ug/L	MW-17	04/12/2021	ND	2.0000		
Antimony, total	ug/L	MW-17	10/06/2021	ND	2.0000		
Antimony, total	ug/L	MW-17	04/14/2022	ND	2.0000		
Antimony, total	ug/L	MW-17	10/25/2022	ND	2.0000		
Antimony, total	ug/L	MW-17	04/03/2023	ND	2.0000		
Antimony, total	ug/L	MW-17	10/16/2023	ND	2.0000		
Antimony, total	ug/L	MW-17	04/22/2024	ND	2.0000		
Antimony, total	ug/L	MW-17	10/07/2024	ND	2.0000		
Antimony, total	ug/L	MW-17	04/01/2025	ND	1.0000	2.0000	**
Antimony, total	ug/L	MW-17	10/13/2025	ND	1.0000	2.0000	**
Arsenic, total	ug/L	MW-17	10/24/2014	ND	0.9450		*
Arsenic, total	ug/L	MW-17	04/07/2015	ND	0.9450		*

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Arsenic, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/16/2018	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Arsenic, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Arsenic, total	ug/L	MW-17	04/01/2025	ND	2.0000	4.0000	**
Arsenic, total	ug/L	MW-17	10/13/2025	ND	2.0000	4.0000	**
Barium, total	ug/L	MW-17	10/24/2014		104.0000		
Barium, total	ug/L	MW-17	04/07/2015		106.0000		
Barium, total	ug/L	MW-17	10/20/2015		93.0000		
Barium, total	ug/L	MW-17	04/11/2016		104.0000		
Barium, total	ug/L	MW-17	10/12/2016		93.6000		
Barium, total	ug/L	MW-17	04/13/2017		107.0000		
Barium, total	ug/L	MW-17	10/25/2017		98.8000		
Barium, total	ug/L	MW-17	04/11/2018		102.0000		
Barium, total	ug/L	MW-17	10/16/2018		113.0000		
Barium, total	ug/L	MW-17	04/17/2019		109.0000		
Barium, total	ug/L	MW-17	10/15/2019		108.0000		
Barium, total	ug/L	MW-17	04/06/2020		110.0000		
Barium, total	ug/L	MW-17	10/13/2020		104.0000		
Barium, total	ug/L	MW-17	04/12/2021		109.0000		
Barium, total	ug/L	MW-17	10/06/2021		102.0000		
Barium, total	ug/L	MW-17	04/14/2022		115.0000		
Barium, total	ug/L	MW-17	10/25/2022		123.0000		
Barium, total	ug/L	MW-17	04/03/2023		109.0000		
Barium, total	ug/L	MW-17	10/16/2023		111.0000		
Barium, total	ug/L	MW-17	04/22/2024		103.0000		
Barium, total	ug/L	MW-17	10/07/2024		97.6000		
Barium, total	ug/L	MW-17	04/01/2025		110.0000		
Barium, total	ug/L	MW-17	10/13/2025		108.0000		
Beryllium, total	ug/L	MW-17	10/24/2014	ND	0.0390		*
Beryllium, total	ug/L	MW-17	04/07/2015	ND	0.0390		*
Beryllium, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/16/2018	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Beryllium, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Beryllium, total	ug/L	MW-17	04/01/2025	ND	0.5000	4.0000	**
Beryllium, total	ug/L	MW-17	10/13/2025	ND	0.5000	4.0000	**
Cadmium, total	ug/L	MW-17	10/24/2014	ND	0.1120	0.8000	**
Cadmium, total	ug/L	MW-17	04/07/2015	ND	0.1120	0.8000	**
Cadmium, total	ug/L	MW-17	10/20/2015	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/11/2016	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/12/2016	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/13/2017	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/25/2017	ND	0.8000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cadmium, total	ug/L	MW-17	04/11/2018	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/16/2018	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/17/2019	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/15/2019	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/13/2020	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/12/2021	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/06/2021	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/14/2022	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/25/2022	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/03/2023	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/16/2023	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/22/2024	ND	0.8000		
Cadmium, total	ug/L	MW-17	10/07/2024	ND	0.8000		
Cadmium, total	ug/L	MW-17	04/01/2025	ND	0.2000	0.8000	**
Cadmium, total	ug/L	MW-17	10/13/2025	ND	0.2000	0.8000	**
Chromium, total	ug/L	MW-17	10/24/2014	ND	1.2400	8.0000	**
Chromium, total	ug/L	MW-17	04/07/2015	ND	1.2400	8.0000	**
Chromium, total	ug/L	MW-17	10/20/2015	ND	8.0000		
Chromium, total	ug/L	MW-17	04/11/2016	ND	8.0000		
Chromium, total	ug/L	MW-17	10/12/2016	ND	8.0000		
Chromium, total	ug/L	MW-17	04/13/2017	ND	8.0000		
Chromium, total	ug/L	MW-17	10/25/2017	ND	8.0000		
Chromium, total	ug/L	MW-17	04/11/2018	ND	8.0000		
Chromium, total	ug/L	MW-17	10/16/2018	ND	8.0000		
Chromium, total	ug/L	MW-17	04/17/2019	ND	8.0000		
Chromium, total	ug/L	MW-17	10/15/2019	ND	8.0000		
Chromium, total	ug/L	MW-17	04/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-17	10/13/2020	ND	8.0000		
Chromium, total	ug/L	MW-17	04/12/2021	ND	8.0000		
Chromium, total	ug/L	MW-17	10/06/2021	ND	8.0000		
Chromium, total	ug/L	MW-17	04/14/2022	ND	8.0000		
Chromium, total	ug/L	MW-17	10/25/2022	ND	8.0000		
Chromium, total	ug/L	MW-17	04/03/2023	ND	8.0000		
Chromium, total	ug/L	MW-17	10/16/2023	ND	8.0000		
Chromium, total	ug/L	MW-17	04/22/2024	ND	8.0000		
Chromium, total	ug/L	MW-17	10/07/2024	ND	8.0000		
Chromium, total	ug/L	MW-17	04/01/2025	ND	1.0000	8.0000	**
Chromium, total	ug/L	MW-17	10/13/2025	ND	1.0000	8.0000	**
Cobalt, total	ug/L	MW-17	10/24/2014	ND	0.2000	0.5000	**
Cobalt, total	ug/L	MW-17	04/07/2015	ND	0.2000	0.5000	**
Cobalt, total	ug/L	MW-17	10/20/2015	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	04/11/2016	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	10/12/2016	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	04/13/2017	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	10/25/2017	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	04/11/2018	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	10/16/2018	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	04/17/2019	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	10/15/2019	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-17	04/06/2020	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	10/13/2020	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	04/12/2021	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	10/06/2021	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	04/14/2022	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	10/25/2022	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	04/03/2023	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	10/16/2023	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	04/22/2024	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	10/07/2024	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-17	04/01/2025	ND	0.5000		
Cobalt, total	ug/L	MW-17	10/13/2025	ND	0.5000		
Copper, total	ug/L	MW-17	10/24/2014		3.6500		
Copper, total	ug/L	MW-17	04/07/2015	ND	0.4850		*
Copper, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Copper, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Copper, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Copper, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Copper, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Copper, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Copper, total	ug/L	MW-17	10/16/2018		7.9000		
Copper, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Copper, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Copper, total	ug/L	MW-17	04/06/2020	ND	4.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Copper, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Copper, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Copper, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Copper, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Copper, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Copper, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Copper, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Copper, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Copper, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Copper, total	ug/L	MW-17	04/01/2025	ND	5.0000	4.0000	**
Copper, total	ug/L	MW-17	10/13/2025	ND	5.0000	4.0000	**
Lead, total	ug/L	MW-17	10/24/2014	ND	0.5000		**
Lead, total	ug/L	MW-17	04/07/2015	ND	0.5000	4.0000	**
Lead, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Lead, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Lead, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Lead, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Lead, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Lead, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Lead, total	ug/L	MW-17	10/16/2018		7.3000		*
Lead, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Lead, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Lead, total	ug/L	MW-17	04/06/2020	ND	4.0000		
Lead, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Lead, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Lead, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Lead, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Lead, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Lead, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Lead, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Lead, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Lead, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Lead, total	ug/L	MW-17	04/01/2025	ND	1.0000	4.0000	**
Lead, total	ug/L	MW-17	10/13/2025	ND	1.0000	4.0000	**
Nickel, total	ug/L	MW-17	10/24/2014	ND	1.0000		*
Nickel, total	ug/L	MW-17	04/07/2015	ND	0.5810		*
Nickel, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Nickel, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Nickel, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Nickel, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Nickel, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Nickel, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Nickel, total	ug/L	MW-17	10/16/2018	ND	4.0000		
Nickel, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Nickel, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Nickel, total	ug/L	MW-17	04/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Nickel, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Nickel, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Nickel, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Nickel, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Nickel, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Nickel, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Nickel, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Nickel, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Nickel, total	ug/L	MW-17	04/01/2025	ND	5.0000	4.0000	**
Nickel, total	ug/L	MW-17	10/13/2025	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-17	10/24/2014	ND	3.3400		**
Selenium, total	ug/L	MW-17	04/07/2015	ND	3.3400	4.0000	**
Selenium, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Selenium, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Selenium, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Selenium, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Selenium, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Selenium, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Selenium, total	ug/L	MW-17	10/16/2018	ND	4.0000		
Selenium, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Selenium, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Selenium, total	ug/L	MW-17	04/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Selenium, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Selenium, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Selenium, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Selenium, total	ug/L	MW-17	10/25/2022	ND	4.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Selenium, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Selenium, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Selenium, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Selenium, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Selenium, total	ug/L	MW-17	04/01/2025	ND	2.0000	4.0000	**
Selenium, total	ug/L	MW-17	10/13/2025	ND	2.0000	4.0000	**
Silver, total	ug/L	MW-17	10/24/2014	ND	0.0420		*
Silver, total	ug/L	MW-17	04/07/2015	ND	0.0420		*
Silver, total	ug/L	MW-17	10/20/2015	ND	4.0000		
Silver, total	ug/L	MW-17	04/11/2016	ND	4.0000		
Silver, total	ug/L	MW-17	10/12/2016	ND	4.0000		
Silver, total	ug/L	MW-17	04/13/2017	ND	4.0000		
Silver, total	ug/L	MW-17	10/25/2017	ND	4.0000		
Silver, total	ug/L	MW-17	04/11/2018	ND	4.0000		
Silver, total	ug/L	MW-17	10/16/2018	ND	4.0000		
Silver, total	ug/L	MW-17	04/17/2019	ND	4.0000		
Silver, total	ug/L	MW-17	10/15/2019	ND	4.0000		
Silver, total	ug/L	MW-17	04/06/2020	ND	4.0000		
Silver, total	ug/L	MW-17	10/13/2020	ND	4.0000		
Silver, total	ug/L	MW-17	04/12/2021	ND	4.0000		
Silver, total	ug/L	MW-17	10/06/2021	ND	4.0000		
Silver, total	ug/L	MW-17	04/14/2022	ND	4.0000		
Silver, total	ug/L	MW-17	10/25/2022	ND	4.0000		
Silver, total	ug/L	MW-17	04/03/2023	ND	4.0000		
Silver, total	ug/L	MW-17	10/16/2023	ND	4.0000		
Silver, total	ug/L	MW-17	04/22/2024	ND	4.0000		
Silver, total	ug/L	MW-17	10/07/2024	ND	4.0000		
Silver, total	ug/L	MW-17	04/01/2025	ND	5.0000	4.0000	**
Silver, total	ug/L	MW-17	10/13/2025	ND	5.0000	4.0000	**
Thallium, total	ug/L	MW-17	10/24/2014	ND	0.0325		*
Thallium, total	ug/L	MW-17	04/07/2015	ND	1.0000	2.0000	**
Thallium, total	ug/L	MW-17	10/20/2015	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	04/11/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	10/12/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	04/13/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	10/25/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	04/11/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	10/16/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-17	04/17/2019	ND	2.0000		
Thallium, total	ug/L	MW-17	10/15/2019	ND	2.0000		
Thallium, total	ug/L	MW-17	04/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-17	10/13/2020	ND	2.0000		
Thallium, total	ug/L	MW-17	04/12/2021	ND	2.0000		
Thallium, total	ug/L	MW-17	10/06/2021	ND	2.0000		
Thallium, total	ug/L	MW-17	04/14/2022	ND	2.0000		
Thallium, total	ug/L	MW-17	10/25/2022	ND	2.0000		
Thallium, total	ug/L	MW-17	04/03/2023	ND	2.0000		
Thallium, total	ug/L	MW-17	10/16/2023	ND	2.0000		
Thallium, total	ug/L	MW-17	04/22/2024	ND	2.0000		
Thallium, total	ug/L	MW-17	10/07/2024	ND	2.0000		
Thallium, total	ug/L	MW-17	04/01/2025	ND	0.5000	2.0000	**
Thallium, total	ug/L	MW-17	10/13/2025	ND	0.5000	2.0000	**
Vanadium, total	ug/L	MW-17	10/24/2014	ND	0.4490	20.0000	**
Vanadium, total	ug/L	MW-17	04/07/2015	ND	0.4490	20.0000	**
Vanadium, total	ug/L	MW-17	10/20/2015	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/11/2016	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/12/2016	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/13/2017	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/25/2017	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/11/2018	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/16/2018	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/17/2019	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/15/2019	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/13/2020	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/12/2021	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/06/2021	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/14/2022	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/25/2022	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/03/2023	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/16/2023	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/22/2024	ND	20.0000		
Vanadium, total	ug/L	MW-17	10/07/2024	ND	20.0000		
Vanadium, total	ug/L	MW-17	04/01/2025	ND	2.0000	20.0000	**

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Vanadium, total	ug/L	MW-17	10/13/2025	ND	2.0000	20.0000	**
Zinc, total	ug/L	MW-17	10/24/2014	ND	6.9500	20.0000	**
Zinc, total	ug/L	MW-17	04/07/2015	ND	6.9500	20.0000	**
Zinc, total	ug/L	MW-17	10/20/2015	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-17	04/11/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-17	10/12/2016	ND	20.0000		
Zinc, total	ug/L	MW-17	04/13/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-17	10/25/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-17	04/11/2018	ND	20.0000		
Zinc, total	ug/L	MW-17	10/16/2018		382.0000		*
Zinc, total	ug/L	MW-17	04/17/2019	ND	20.0000		
Zinc, total	ug/L	MW-17	10/15/2019	ND	20.0000		
Zinc, total	ug/L	MW-17	04/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-17	10/13/2020	ND	20.0000		
Zinc, total	ug/L	MW-17	04/12/2021	ND	20.0000		
Zinc, total	ug/L	MW-17	10/06/2021	ND	20.0000		
Zinc, total	ug/L	MW-17	04/14/2022	ND	20.0000		
Zinc, total	ug/L	MW-17	10/25/2022	ND	20.0000		
Zinc, total	ug/L	MW-17	04/03/2023	ND	20.0000		
Zinc, total	ug/L	MW-17	10/16/2023	ND	20.0000		
Zinc, total	ug/L	MW-17	04/22/2024	ND	20.0000		
Zinc, total	ug/L	MW-17	10/07/2024	ND	20.0000		
Zinc, total	ug/L	MW-17	04/01/2025	ND	5.0000	20.0000	**
Zinc, total	ug/L	MW-17	10/13/2025	ND	5.0000	20.0000	**
Antimony, total	ug/L	MW-21	10/24/2014	ND	0.1610		*
Antimony, total	ug/L	MW-21	04/07/2015	ND	0.1610		*
Antimony, total	ug/L	MW-21	10/20/2015	ND	2.0000		
Antimony, total	ug/L	MW-21	04/11/2016	ND	2.0000		
Antimony, total	ug/L	MW-21	10/12/2016	ND	2.0000		
Antimony, total	ug/L	MW-21	04/13/2017	ND	2.0000		
Antimony, total	ug/L	MW-21	10/25/2017	ND	2.0000		
Antimony, total	ug/L	MW-21	04/11/2018	ND	2.0000		
Antimony, total	ug/L	MW-21	10/16/2018	ND	2.0000		
Antimony, total	ug/L	MW-21	04/17/2019	ND	2.0000		
Antimony, total	ug/L	MW-21	10/15/2019	ND	2.0000		
Antimony, total	ug/L	MW-21	04/06/2020	ND	2.0000		
Antimony, total	ug/L	MW-21	10/13/2020	ND	2.0000		
Antimony, total	ug/L	MW-21	04/12/2021	ND	2.0000		
Antimony, total	ug/L	MW-21	10/06/2021	ND	2.0000		
Antimony, total	ug/L	MW-21	04/14/2022	ND	2.0000		
Antimony, total	ug/L	MW-21	04/03/2023	ND	2.0000		
Antimony, total	ug/L	MW-21	04/22/2024	ND	2.0000		
Antimony, total	ug/L	MW-21	10/07/2024	ND	2.0000		
Antimony, total	ug/L	MW-21	04/01/2025	ND	1.0000	2.0000	**
Antimony, total	ug/L	MW-21	10/13/2025	ND	1.0000	2.0000	**
Arsenic, total	ug/L	MW-21	10/24/2014	ND	0.9450	4.0000	**
Arsenic, total	ug/L	MW-21	04/07/2015	ND	0.9450	4.0000	**
Arsenic, total	ug/L	MW-21	10/20/2015	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Arsenic, total	ug/L	MW-21	10/07/2024	ND	4.0000		
Arsenic, total	ug/L	MW-21	04/01/2025	ND	2.0000	4.0000	**
Arsenic, total	ug/L	MW-21	10/13/2025	ND	2.0000	4.0000	**
Barium, total	ug/L	MW-21	10/24/2014		51.9000		
Barium, total	ug/L	MW-21	04/07/2015		48.7000		
Barium, total	ug/L	MW-21	10/20/2015		36.1000		
Barium, total	ug/L	MW-21	04/11/2016		55.9000		
Barium, total	ug/L	MW-21	10/12/2016		66.9000		
Barium, total	ug/L	MW-21	04/13/2017		49.2000		
Barium, total	ug/L	MW-21	10/25/2017		98.3000		
Barium, total	ug/L	MW-21	04/11/2018		35.3000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Barium, total	ug/L	MW-21	10/16/2018		64.7000		
Barium, total	ug/L	MW-21	04/17/2019		85.0000		
Barium, total	ug/L	MW-21	10/15/2019		64.0000		
Barium, total	ug/L	MW-21	04/06/2020		48.7000		
Barium, total	ug/L	MW-21	10/13/2020		99.4000		
Barium, total	ug/L	MW-21	04/12/2021		38.6000		
Barium, total	ug/L	MW-21	10/06/2021		104.0000		
Barium, total	ug/L	MW-21	04/14/2022		52.1000		
Barium, total	ug/L	MW-21	04/03/2023		41.9000		
Barium, total	ug/L	MW-21	04/22/2024		45.2000		
Barium, total	ug/L	MW-21	10/07/2024		208.0000		
Barium, total	ug/L	MW-21	04/01/2025		44.5000		
Barium, total	ug/L	MW-21	10/13/2025		39.4000		
Beryllium, total	ug/L	MW-21	10/24/2014	ND	0.0390		*
Beryllium, total	ug/L	MW-21	04/07/2015	ND	0.0390		*
Beryllium, total	ug/L	MW-21	10/20/2015	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Beryllium, total	ug/L	MW-21	10/07/2024	ND	4.0000		
Beryllium, total	ug/L	MW-21	04/01/2025	ND	0.5000	4.0000	**
Beryllium, total	ug/L	MW-21	10/13/2025	ND	0.5000	4.0000	**
Cadmium, total	ug/L	MW-21	10/24/2014	ND	0.1120		**
Cadmium, total	ug/L	MW-21	04/07/2015	ND	0.1120	0.8000	**
Cadmium, total	ug/L	MW-21	10/20/2015	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/11/2016	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/12/2016	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/13/2017	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/25/2017	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/11/2018	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/16/2018	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/17/2019	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/15/2019	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/06/2020	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/13/2020	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/12/2021	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/06/2021	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/14/2022	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/03/2023	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/22/2024	ND	0.8000		
Cadmium, total	ug/L	MW-21	10/07/2024	ND	0.8000		
Cadmium, total	ug/L	MW-21	04/01/2025	ND	0.2000	0.8000	**
Cadmium, total	ug/L	MW-21	10/13/2025	ND	0.2000	0.8000	**
Chromium, total	ug/L	MW-21	10/24/2014	ND	1.2400	8.0000	**
Chromium, total	ug/L	MW-21	04/07/2015	ND	1.2400	8.0000	**
Chromium, total	ug/L	MW-21	10/20/2015	ND	8.0000		
Chromium, total	ug/L	MW-21	04/11/2016	ND	8.0000		
Chromium, total	ug/L	MW-21	10/12/2016	ND	8.0000		
Chromium, total	ug/L	MW-21	04/13/2017	ND	8.0000		
Chromium, total	ug/L	MW-21	10/25/2017	ND	8.0000		
Chromium, total	ug/L	MW-21	04/11/2018	ND	8.0000		
Chromium, total	ug/L	MW-21	10/16/2018	ND	8.0000		
Chromium, total	ug/L	MW-21	04/17/2019	ND	8.0000		
Chromium, total	ug/L	MW-21	10/15/2019	ND	8.0000		
Chromium, total	ug/L	MW-21	04/06/2020	ND	8.0000		
Chromium, total	ug/L	MW-21	10/13/2020	ND	8.0000		
Chromium, total	ug/L	MW-21	04/12/2021	ND	8.0000		
Chromium, total	ug/L	MW-21	10/06/2021	ND	8.0000		
Chromium, total	ug/L	MW-21	04/14/2022	ND	8.0000		
Chromium, total	ug/L	MW-21	04/03/2023	ND	8.0000		
Chromium, total	ug/L	MW-21	04/22/2024	ND	8.0000		
Chromium, total	ug/L	MW-21	10/07/2024	ND	8.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chromium, total	ug/L	MW-21	04/01/2025		1.0000		
Chromium, total	ug/L	MW-21	10/13/2025	ND	1.0000	8.0000	**
Cobalt, total	ug/L	MW-21	10/24/2014	ND	0.0528		*
Cobalt, total	ug/L	MW-21	04/07/2015	ND	0.0528		*
Cobalt, total	ug/L	MW-21	10/20/2015	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	04/11/2016	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	10/12/2016	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	04/13/2017	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	10/25/2017	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	04/11/2018	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	10/16/2018	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	04/17/2019	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	10/15/2019	ND	0.8000	0.5000	**
Cobalt, total	ug/L	MW-21	04/06/2020	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-21	10/13/2020		0.4000		
Cobalt, total	ug/L	MW-21	04/12/2021	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-21	10/06/2021	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-21	04/14/2022	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-21	04/03/2023	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-21	04/22/2024	ND	0.4000	0.5000	**
Cobalt, total	ug/L	MW-21	10/07/2024		2.9000		*
Cobalt, total	ug/L	MW-21	04/01/2025	ND	0.5000		
Cobalt, total	ug/L	MW-21	10/13/2025		0.5000		
Copper, total	ug/L	MW-21	10/24/2014	ND	0.4850		*
Copper, total	ug/L	MW-21	04/07/2015	ND	0.4850		*
Copper, total	ug/L	MW-21	10/20/2015	ND	4.0000		
Copper, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Copper, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Copper, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Copper, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Copper, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Copper, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Copper, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Copper, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Copper, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Copper, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Copper, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Copper, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Copper, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Copper, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Copper, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Copper, total	ug/L	MW-21	10/07/2024	ND	4.0000		
Copper, total	ug/L	MW-21	04/01/2025	ND	5.0000	4.0000	**
Copper, total	ug/L	MW-21	10/13/2025	ND	5.0000	4.0000	**
Lead, total	ug/L	MW-21	10/24/2014	ND	0.0967		*
Lead, total	ug/L	MW-21	04/07/2015	ND	0.5000	4.0000	**
Lead, total	ug/L	MW-21	10/20/2015	ND	4.0000		
Lead, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Lead, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Lead, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Lead, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Lead, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Lead, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Lead, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Lead, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Lead, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Lead, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Lead, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Lead, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Lead, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Lead, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Lead, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Lead, total	ug/L	MW-21	10/07/2024	ND	4.0000		
Lead, total	ug/L	MW-21	04/01/2025	ND	1.0000	4.0000	**
Lead, total	ug/L	MW-21	10/13/2025	ND	1.0000	4.0000	**
Nickel, total	ug/L	MW-21	10/24/2014	ND	10.0000	4.0000	**
Nickel, total	ug/L	MW-21	04/07/2015	ND	0.5810		*
Nickel, total	ug/L	MW-21	10/20/2015		4.3000		
Nickel, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Nickel, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Nickel, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Nickel, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Nickel, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Nickel, total	ug/L	MW-21	10/16/2018	ND	4.0000		

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Nickel, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Nickel, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Nickel, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Nickel, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Nickel, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Nickel, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Nickel, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Nickel, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Nickel, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Nickel, total	ug/L	MW-21	10/07/2024		11.6000		
Nickel, total	ug/L	MW-21	04/01/2025	ND	5.0000	4.0000	**
Nickel, total	ug/L	MW-21	10/13/2025	ND	5.0000	4.0000	**
Selenium, total	ug/L	MW-21	10/24/2014	ND	3.3400	4.0000	**
Selenium, total	ug/L	MW-21	04/07/2015	ND	3.3400	4.0000	**
Selenium, total	ug/L	MW-21	10/20/2015	ND	4.0000		
Selenium, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Selenium, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Selenium, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Selenium, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Selenium, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Selenium, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Selenium, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Selenium, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Selenium, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Selenium, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Selenium, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Selenium, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Selenium, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Selenium, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Selenium, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Selenium, total	ug/L	MW-21	10/07/2024	ND	4.0000		
Selenium, total	ug/L	MW-21	04/01/2025		2.1000		
Selenium, total	ug/L	MW-21	10/13/2025	ND	2.0000	4.0000	**
Silver, total	ug/L	MW-21	10/24/2014	ND	0.0420		*
Silver, total	ug/L	MW-21	04/07/2015	ND	0.0420		*
Silver, total	ug/L	MW-21	10/20/2015	ND	4.0000		
Silver, total	ug/L	MW-21	04/11/2016	ND	4.0000		
Silver, total	ug/L	MW-21	10/12/2016	ND	4.0000		
Silver, total	ug/L	MW-21	04/13/2017	ND	4.0000		
Silver, total	ug/L	MW-21	10/25/2017	ND	4.0000		
Silver, total	ug/L	MW-21	04/11/2018	ND	4.0000		
Silver, total	ug/L	MW-21	10/16/2018	ND	4.0000		
Silver, total	ug/L	MW-21	04/17/2019	ND	4.0000		
Silver, total	ug/L	MW-21	10/15/2019	ND	4.0000		
Silver, total	ug/L	MW-21	04/06/2020	ND	4.0000		
Silver, total	ug/L	MW-21	10/13/2020	ND	4.0000		
Silver, total	ug/L	MW-21	04/12/2021	ND	4.0000		
Silver, total	ug/L	MW-21	10/06/2021	ND	4.0000		
Silver, total	ug/L	MW-21	04/14/2022	ND	4.0000		
Silver, total	ug/L	MW-21	04/03/2023	ND	4.0000		
Silver, total	ug/L	MW-21	04/22/2024	ND	4.0000		
Silver, total	ug/L	MW-21	10/07/2024	ND	4.0000		
Silver, total	ug/L	MW-21	04/01/2025	ND	5.0000	4.0000	**
Silver, total	ug/L	MW-21	10/13/2025	ND	5.0000	4.0000	**
Thallium, total	ug/L	MW-21	10/24/2014	ND	0.0325		*
Thallium, total	ug/L	MW-21	04/07/2015	ND	0.0325		*
Thallium, total	ug/L	MW-21	10/20/2015	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	04/11/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	10/12/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	04/13/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	10/25/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	04/11/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	10/16/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-21	04/17/2019	ND	2.0000		
Thallium, total	ug/L	MW-21	10/15/2019	ND	2.0000		
Thallium, total	ug/L	MW-21	04/06/2020	ND	2.0000		
Thallium, total	ug/L	MW-21	10/13/2020	ND	2.0000		
Thallium, total	ug/L	MW-21	04/12/2021	ND	2.0000		
Thallium, total	ug/L	MW-21	10/06/2021	ND	2.0000		
Thallium, total	ug/L	MW-21	04/14/2022	ND	2.0000		
Thallium, total	ug/L	MW-21	04/03/2023	ND	2.0000		
Thallium, total	ug/L	MW-21	04/22/2024	ND	2.0000		
Thallium, total	ug/L	MW-21	10/07/2024	ND	2.0000		
Thallium, total	ug/L	MW-21	04/01/2025	ND	0.5000	2.0000	**

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Thallium, total	ug/L	MW-21	10/13/2025	ND	0.5000	2.0000	**
Vanadium, total	ug/L	MW-21	10/24/2014	ND	0.4490	20.0000	**
Vanadium, total	ug/L	MW-21	04/07/2015	ND	0.4490	20.0000	**
Vanadium, total	ug/L	MW-21	10/20/2015	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/11/2016	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/12/2016	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/13/2017	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/25/2017	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/11/2018	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/16/2018	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/17/2019	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/15/2019	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/06/2020	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/13/2020	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/12/2021	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/06/2021	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/14/2022	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/03/2023	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/22/2024	ND	20.0000		
Vanadium, total	ug/L	MW-21	10/07/2024	ND	20.0000		
Vanadium, total	ug/L	MW-21	04/01/2025	ND	2.0000	20.0000	**
Vanadium, total	ug/L	MW-21	10/13/2025	ND	2.0000	20.0000	**
Zinc, total	ug/L	MW-21	10/24/2014	ND	6.9500	20.0000	**
Zinc, total	ug/L	MW-21	04/07/2015	ND	6.9500	20.0000	**
Zinc, total	ug/L	MW-21	10/20/2015	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-21	04/11/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-21	10/12/2016	ND	20.0000		
Zinc, total	ug/L	MW-21	04/13/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-21	10/25/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-21	04/11/2018		20.8000		
Zinc, total	ug/L	MW-21	10/16/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-21	04/17/2019	ND	20.0000		
Zinc, total	ug/L	MW-21	10/15/2019	ND	20.0000		
Zinc, total	ug/L	MW-21	04/06/2020	ND	20.0000		
Zinc, total	ug/L	MW-21	10/13/2020	ND	20.0000		
Zinc, total	ug/L	MW-21	04/12/2021	ND	20.0000		
Zinc, total	ug/L	MW-21	10/06/2021	ND	20.0000		
Zinc, total	ug/L	MW-21	04/14/2022	ND	20.0000		
Zinc, total	ug/L	MW-21	04/03/2023	ND	20.0000		
Zinc, total	ug/L	MW-21	04/22/2024	ND	20.0000		
Zinc, total	ug/L	MW-21	10/07/2024	ND	20.0000		
Zinc, total	ug/L	MW-21	04/01/2025		6.1000		
Zinc, total	ug/L	MW-21	10/13/2025	ND	5.0000	20.0000	**

* - Outlier for that well and constituent.

** - ND value replaced with median RL.

*** - ND value replaced with manual RL.

ND = Not detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, total	ug/L	MW-16	10/13/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-16	10/13/2025	ND	2.0000		4.0000
Barium, total	ug/L	MW-16	10/13/2025		162.0000		270.5859
Beryllium, total	ug/L	MW-16	10/13/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-16	10/13/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-16	10/13/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-16	10/13/2025	ND	0.5000		0.7000
Copper, total	ug/L	MW-16	10/13/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-16	10/13/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-16	10/13/2025	ND	5.0000		11.6000
Selenium, total	ug/L	MW-16	10/13/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-16	10/13/2025	ND	5.0000		4.0000
Thallium, total	ug/L	MW-16	10/13/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-16	10/13/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-16	10/13/2025		7.7000		20.8000
Antimony, total	ug/L	MW-24	10/13/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-24	10/13/2025		18.5000	***	4.0000
Barium, total	ug/L	MW-24	10/13/2025		614.0000	***	270.5859
Beryllium, total	ug/L	MW-24	10/13/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-24	10/13/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-24	10/13/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-24	10/13/2025		3.9000	***	0.7000
Copper, total	ug/L	MW-24	10/13/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-24	10/13/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-24	10/13/2025		46.3000	***	11.6000
Selenium, total	ug/L	MW-24	10/13/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-24	10/13/2025	ND	5.0000		4.0000
Thallium, total	ug/L	MW-24	10/13/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-24	10/13/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-24	10/13/2025		6.5000		20.8000
Antimony, total	ug/L	MW-25	10/13/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-25	10/13/2025	ND	2.0000		4.0000
Barium, total	ug/L	MW-25	10/13/2025		41.5000		270.5859
Beryllium, total	ug/L	MW-25	10/13/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-25	10/13/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-25	10/13/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-25	10/13/2025		0.6000		0.7000
Copper, total	ug/L	MW-25	10/13/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-25	10/13/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-25	10/13/2025		6.0000		11.6000
Selenium, total	ug/L	MW-25	10/13/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-25	10/13/2025	ND	5.0000		4.0000
Thallium, total	ug/L	MW-25	10/13/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-25	10/13/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-25	10/13/2025		10.6000		20.8000
Antimony, total	ug/L	MW-26	10/13/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-26	10/13/2025	ND	2.0000		4.0000
Barium, total	ug/L	MW-26	10/13/2025		42.9000		270.5859
Beryllium, total	ug/L	MW-26	10/13/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-26	10/13/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-26	10/13/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-26	10/13/2025		7.3000	***	0.7000
Copper, total	ug/L	MW-26	10/13/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-26	10/13/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-26	10/13/2025		7.9000		11.6000
Selenium, total	ug/L	MW-26	10/13/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-26	10/13/2025	ND	5.0000		4.0000
Thallium, total	ug/L	MW-26	10/13/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-26	10/13/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-26	10/13/2025		21.5000	*	20.8000
Antimony, total	ug/L	MW-32	10/13/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-32	10/13/2025		3.8000		4.0000
Barium, total	ug/L	MW-32	10/13/2025		305.0000	***	270.5859
Beryllium, total	ug/L	MW-32	10/13/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-32	10/13/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-32	10/13/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-32	10/13/2025	ND	0.5000	**	0.7000
Copper, total	ug/L	MW-32	10/13/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-32	10/13/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-32	10/13/2025	ND	5.0000		11.6000
Selenium, total	ug/L	MW-32	10/13/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-32	10/13/2025	ND	5.0000		4.0000

* - Current value failed - awaiting verification.

** - Current value passed - previous exceedance not verified.

*** - Current value failed - exceedance verified.

**** - Current value passed - awaiting one more verification.

***** - Insufficient background data to compute prediction limit.

ND = Not Detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Thallium, total	ug/L	MW-32	10/13/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-32	10/13/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-32	10/13/2025		5.2000		20.8000
Antimony, total	ug/L	MW-33	10/13/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-33	10/13/2025	ND	2.0000		4.0000
Barium, total	ug/L	MW-33	10/13/2025		243.0000		270.5859
Beryllium, total	ug/L	MW-33	10/13/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-33	10/13/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-33	10/13/2025		1.0000		8.0000
Cobalt, total	ug/L	MW-33	10/13/2025		3.5000	***	0.7000
Copper, total	ug/L	MW-33	10/13/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-33	10/13/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-33	10/13/2025		7.6000	**	11.6000
Selenium, total	ug/L	MW-33	10/13/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-33	10/13/2025	ND	5.0000		4.0000
Thallium, total	ug/L	MW-33	10/13/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-33	10/13/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-33	10/13/2025		8.3000		20.8000
Antimony, total	ug/L	MW-9	10/13/2025	ND	1.0000		2.0000
Arsenic, total	ug/L	MW-9	10/13/2025		7.0000	***	4.0000
Barium, total	ug/L	MW-9	10/13/2025		399.0000	***	270.5859
Beryllium, total	ug/L	MW-9	10/13/2025	ND	0.5000		4.0000
Cadmium, total	ug/L	MW-9	10/13/2025	ND	0.2000		0.8000
Chromium, total	ug/L	MW-9	10/13/2025	ND	1.0000		8.0000
Cobalt, total	ug/L	MW-9	10/13/2025		1.1000	***	0.7000
Copper, total	ug/L	MW-9	10/13/2025	ND	5.0000		7.9000
Lead, total	ug/L	MW-9	10/13/2025	ND	1.0000		4.0000
Nickel, total	ug/L	MW-9	10/13/2025	ND	5.0000		11.6000
Selenium, total	ug/L	MW-9	10/13/2025	ND	2.0000		4.0000
Silver, total	ug/L	MW-9	10/13/2025	ND	5.0000		4.0000
Thallium, total	ug/L	MW-9	10/13/2025	ND	0.5000		2.0000
Vanadium, total	ug/L	MW-9	10/13/2025	ND	2.0000		20.0000
Zinc, total	ug/L	MW-9	10/13/2025		10.0000		20.8000

* - Current value failed - awaiting verification.

** - Current value passed - previous exceedance not verified.

*** - Current value failed - exceedance verified.

**** - Current value passed - awaiting one more verification.

***** - Insufficient background data to compute prediction limit.

ND = Not Detected, Result = detection limit.

Table 3**Detection Frequencies in Upgradient and Downgradient Wells**

Constituent	Detect	Upgradient N	Proportion	Detect	Downgradient N	Proportion
Antimony, total	0	61	0.000	2	206	0.010
Arsenic, total	0	63	0.000	62	208	0.298
Barium, total	67	67	1.000	207	207	1.000
Beryllium, total	0	61	0.000	2	206	0.010
Cadmium, total	0	67	0.000	14	206	0.068
Chromium, total	2	67	0.030	5	206	0.024
Cobalt, total	3	62	0.048	109	210	0.519
Copper, total	3	63	0.048	24	206	0.117
Lead, total	0	63	0.000	15	206	0.073
Nickel, total	2	62	0.032	78	206	0.379
Selenium, total	1	67	0.015	4	207	0.019
Silver, total	0	61	0.000	1	206	0.005
Thallium, total	0	62	0.000	0	206	0.000
Vanadium, total	0	67	0.000	9	206	0.044
Zinc, total	7	66	0.106	45	207	0.217

N = Total number of measurements in all wells.

Detect = Total number of detections in all wells.

Proportion = Detect/N.

Table 4

Shapiro-Wilk Multiple Group Test of Normality

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, total	0	61	0.000									nonpar
Arsenic, total	0	63	0.000									nonpar
Barium, total	67	67	1.000	3.631	1.658					2.326	lognor	lognor
Beryllium, total	0	61	0.000									nonpar
Cadmium, total	0	67	0.000									nonpar
Chromium, total	2	67	0.030									nonpar
Cobalt, total	3	62	0.048									nonpar
Copper, total	3	63	0.048									nonpar
Lead, total	0	63	0.000									nonpar
Nickel, total	2	62	0.032									nonpar
Selenium, total	1	67	0.015									nonpar
Silver, total	0	61	0.000									nonpar
Thallium, total	0	62	0.000									nonpar
Vanadium, total	0	67	0.000									nonpar
Zinc, total	7	66	0.106	1.126	0.212					2.326	normal	nonpar

* - Distribution override for that constituent.

Fit to distribution is confirmed if G <= critical value.

Model type may not match distributional form when detection frequency < 50%.

Table 5

Summary Statistics and Prediction Limits

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type		Conf
Antimony, total	ug/L	0	61	4.5478	0.4383	0.0100	2.4019	2.0000	nonpar	***	0.99
Arsenic, total	ug/L	0	63					4.0000	nonpar	***	0.99
Barium, total	ug/L	67	67					270.5859	lognor		
Beryllium, total	ug/L	0	61					4.0000	nonpar	***	0.99
Cadmium, total	ug/L	0	67					0.8000	nonpar	***	0.99
Chromium, total	ug/L	2	67					8.0000	nonpar	***	0.99
Cobalt, total	ug/L	3	62					0.7000	nonpar		0.99
Copper, total	ug/L	3	63					7.9000	nonpar		0.99
Lead, total	ug/L	0	63					4.0000	nonpar	***	0.99
Nickel, total	ug/L	2	62					11.6000	nonpar		0.99
Selenium, total	ug/L	1	67					4.0000	nonpar	***	0.99
Silver, total	ug/L	0	61					4.0000	nonpar	***	0.99
Thallium, total	ug/L	0	62					2.0000	nonpar	***	0.99
Vanadium, total	ug/L	0	67					20.0000	nonpar	***	0.99
Zinc, total	ug/L	7	66					20.8000	nonpar		0.99

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).

* - Insufficient Data.

** - Calculated limit raised to Manual Reporting Limit.

*** - Nonparametric limit based on ND value.

For transformed data, mean and SD in transformed units and prediction limit in original units.

All sample sizes and statistics are based on outlier free data.

For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

Table 6

**Dixon's Test Outliers
1% Significance Level**

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Antimony, total	ug/L	MW-12	10/24/2014	0.1610	< 0.1610	10/24/2014-10/13/2025	23	0.5162
Antimony, total	ug/L	MW-12	04/07/2015	0.1610	< 0.1610	10/24/2014-10/13/2025	23	0.5162
Antimony, total	ug/L	MW-12	10/12/2016	6.2000		10/24/2014-10/13/2025	23	0.5065
Arsenic, total	ug/L	MW-12	10/24/2014	0.9450	< 0.9450	10/24/2014-10/13/2025	23	0.5162
Arsenic, total	ug/L	MW-12	04/07/2015	0.9450	< 0.9450	10/24/2014-10/13/2025	23	0.5162
Beryllium, total	ug/L	MW-12	10/24/2014	0.0390	< 0.0390	10/24/2014-10/13/2025	23	0.5162
Beryllium, total	ug/L	MW-12	04/07/2015	0.0390	< 0.0390	10/24/2014-10/13/2025	23	0.5162
Cobalt, total	ug/L	MW-12	10/24/2014	0.0528	< 0.0528	10/24/2014-10/13/2025	23	0.5162
Cobalt, total	ug/L	MW-12	04/07/2015	0.0528	< 0.0528	10/24/2014-10/13/2025	23	0.5162
Copper, total	ug/L	MW-12	04/07/2015	0.4850	< 0.4850	10/24/2014-10/13/2025	23	0.5065
Lead, total	ug/L	MW-12	10/24/2014	0.0967	< 0.0967	10/24/2014-10/13/2025	23	0.5162
Lead, total	ug/L	MW-12	04/07/2015	0.0967	< 0.0967	10/24/2014-10/13/2025	23	0.5162
Nickel, total	ug/L	MW-12	10/24/2014	1.0000	< 1.0000	10/24/2014-10/13/2025	23	0.5162
Nickel, total	ug/L	MW-12	04/07/2015	0.5810	< 0.5810	10/24/2014-10/13/2025	23	0.5162
Silver, total	ug/L	MW-12	10/24/2014	0.0420	< 0.0420	10/24/2014-10/13/2025	23	0.5162
Silver, total	ug/L	MW-12	04/07/2015	0.0420	< 0.0420	10/24/2014-10/13/2025	23	0.5162
Thallium, total	ug/L	MW-12	10/24/2014	0.0325	< 0.0325	10/24/2014-10/13/2025	23	0.5162
Thallium, total	ug/L	MW-12	04/07/2015	0.0325	< 0.0325	10/24/2014-10/13/2025	23	0.5162
Antimony, total	ug/L	MW-17	04/07/2015	0.1610	< 0.1610	10/24/2014-10/13/2025	23	0.5065
Arsenic, total	ug/L	MW-17	10/24/2014	0.9450	< 0.9450	10/24/2014-10/13/2025	23	0.5162
Arsenic, total	ug/L	MW-17	04/07/2015	0.9450	< 0.9450	10/24/2014-10/13/2025	23	0.5162
Beryllium, total	ug/L	MW-17	10/24/2014	0.0390	< 0.0390	10/24/2014-10/13/2025	23	0.5162
Beryllium, total	ug/L	MW-17	04/07/2015	0.0390	< 0.0390	10/24/2014-10/13/2025	23	0.5162
Copper, total	ug/L	MW-17	04/07/2015	0.4850	< 0.4850	10/24/2014-10/13/2025	23	0.5065
Nickel, total	ug/L	MW-17	10/24/2014	1.0000	< 1.0000	10/24/2014-10/13/2025	23	0.5162
Nickel, total	ug/L	MW-17	04/07/2015	0.5810	< 0.5810	10/24/2014-10/13/2025	23	0.5162
Silver, total	ug/L	MW-17	10/24/2014	0.0420	< 0.0420	10/24/2014-10/13/2025	23	0.5162
Silver, total	ug/L	MW-17	04/07/2015	0.0420	< 0.0420	10/24/2014-10/13/2025	23	0.5162
Thallium, total	ug/L	MW-17	10/24/2014	0.0325	< 0.0325	10/24/2014-10/13/2025	23	0.5065
Antimony, total	ug/L	MW-21	10/24/2014	0.1610	< 0.1610	10/24/2014-10/13/2025	21	0.5381
Antimony, total	ug/L	MW-21	04/07/2015	0.1610	< 0.1610	10/24/2014-10/13/2025	21	0.5381
Beryllium, total	ug/L	MW-21	10/24/2014	0.0390	< 0.0390	10/24/2014-10/13/2025	21	0.5381
Beryllium, total	ug/L	MW-21	04/07/2015	0.0390	< 0.0390	10/24/2014-10/13/2025	21	0.5381
Cobalt, total	ug/L	MW-21	10/24/2014	0.0528	< 0.0528	10/24/2014-10/13/2025	21	0.5381
Cobalt, total	ug/L	MW-21	04/07/2015	0.0528	< 0.0528	10/24/2014-10/13/2025	21	0.5381
Cobalt, total	ug/L	MW-21	10/07/2024	2.9000		10/24/2014-10/13/2025	21	0.5263
Copper, total	ug/L	MW-21	10/24/2014	0.4850	< 0.4850	10/24/2014-10/13/2025	21	0.5381
Copper, total	ug/L	MW-21	04/07/2015	0.4850	< 0.4850	10/24/2014-10/13/2025	21	0.5381
Lead, total	ug/L	MW-21	10/24/2014	0.0967	< 0.0967	10/24/2014-10/13/2025	21	0.5263
Nickel, total	ug/L	MW-21	04/07/2015	0.5810	< 0.5810	10/24/2014-10/13/2025	21	0.5263
Silver, total	ug/L	MW-21	10/24/2014	0.0420	< 0.0420	10/24/2014-10/13/2025	21	0.5381
Silver, total	ug/L	MW-21	04/07/2015	0.0420	< 0.0420	10/24/2014-10/13/2025	21	0.5381
Thallium, total	ug/L	MW-21	10/24/2014	0.0325	< 0.0325	10/24/2014-10/13/2025	21	0.5381
Thallium, total	ug/L	MW-21	04/07/2015	0.0325	< 0.0325	10/24/2014-10/13/2025	21	0.5381

N = Total number of independent measurements in background at each well.

Date Range = Dates of the first and last measurements included in background at each well.

Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

Table 8

**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	MW-24	10/25/2022		40.0000	*	11.6000
Nickel, total	ug/L	MW-24	04/03/2023		27.6000	*	11.6000
Nickel, total	ug/L	MW-24	04/22/2024		38.0000	*	11.6000
Nickel, total	ug/L	MW-24	04/01/2025		35.6000	*	11.6000
Nickel, total	ug/L	MW-24	10/13/2025		46.3000	*	11.6000
Cobalt, total	ug/L	MW-26	02/18/2011	ND	20.0000		0.7000
Cobalt, total	ug/L	MW-26	04/12/2011	ND	20.0000		0.7000
Cobalt, total	ug/L	MW-26	06/21/2011	ND	20.0000		0.7000
Cobalt, total	ug/L	MW-26	08/22/2011	ND	20.0000		0.7000
Cobalt, total	ug/L	MW-26	10/10/2011	ND	1.5500		0.7000
Cobalt, total	ug/L	MW-26	12/29/2011	ND	10.0000		0.7000
Cobalt, total	ug/L	MW-26	02/07/2012		4.8600	*	0.7000
Cobalt, total	ug/L	MW-26	04/18/2012	ND	1.5500		0.7000
Cobalt, total	ug/L	MW-26	08/23/2012		2.4700	*	0.7000
Cobalt, total	ug/L	MW-26	10/10/2012	ND	10.0000		0.7000
Cobalt, total	ug/L	MW-26	04/23/2013	ND	0.5540		0.7000
Cobalt, total	ug/L	MW-26	10/28/2013		0.9430	*	0.7000
Cobalt, total	ug/L	MW-26	04/23/2014	ND	10.0000		0.7000
Cobalt, total	ug/L	MW-26	10/28/2014		16.5000	*	0.7000
Cobalt, total	ug/L	MW-26	04/28/2015	ND	0.2000		0.7000
Cobalt, total	ug/L	MW-26	10/20/2015		1.6000	*	0.7000
Cobalt, total	ug/L	MW-26	04/11/2016	ND	0.8000		0.7000
Cobalt, total	ug/L	MW-26	10/11/2016		2.9000	*	0.7000
Cobalt, total	ug/L	MW-26	04/13/2017	ND	0.8000		0.7000
Cobalt, total	ug/L	MW-26	10/26/2017		4.0000	*	0.7000
Cobalt, total	ug/L	MW-26	01/17/2018		3.4000	*	0.7000
Cobalt, total	ug/L	MW-26	04/11/2018		3.2000	*	0.7000
Cobalt, total	ug/L	MW-26	10/16/2018		2.1000	*	0.7000
Cobalt, total	ug/L	MW-26	04/17/2019	ND	0.8000		0.7000
Cobalt, total	ug/L	MW-26	10/15/2019		1.2000	*	0.7000
Cobalt, total	ug/L	MW-26	04/06/2020		1.0000	*	0.7000
Cobalt, total	ug/L	MW-26	10/14/2020		3.6000	*	0.7000
Cobalt, total	ug/L	MW-26	04/12/2021	ND	0.4000		0.7000
Cobalt, total	ug/L	MW-26	10/06/2021		3.6000	*	0.7000
Cobalt, total	ug/L	MW-26	04/14/2022		0.6000		0.7000
Cobalt, total	ug/L	MW-26	10/25/2022		0.9000	*	0.7000
Cobalt, total	ug/L	MW-26	04/03/2023	ND	0.4000		0.7000
Cobalt, total	ug/L	MW-26	10/16/2023		13.6000	*	0.7000
Cobalt, total	ug/L	MW-26	04/22/2024		1.1000	*	0.7000
Cobalt, total	ug/L	MW-26	10/07/2024		11.8000	*	0.7000
Cobalt, total	ug/L	MW-26	04/01/2025		3.4000	*	0.7000
Cobalt, total	ug/L	MW-26	10/13/2025		7.3000	*	0.7000
Zinc, total	ug/L	MW-26	02/18/2011	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	04/12/2011	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	06/21/2011	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	08/22/2011	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	10/10/2011	ND	9.1100		20.8000
Zinc, total	ug/L	MW-26	12/29/2011	ND	9.1100		20.8000
Zinc, total	ug/L	MW-26	02/07/2012		5.4400		20.8000
Zinc, total	ug/L	MW-26	04/18/2012		37.4000	*	20.8000
Zinc, total	ug/L	MW-26	08/23/2012		9.0800		20.8000
Zinc, total	ug/L	MW-26	10/10/2012	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	04/23/2013	ND	6.2500		20.8000
Zinc, total	ug/L	MW-26	10/28/2013	ND	0.6250		20.8000
Zinc, total	ug/L	MW-26	04/23/2014	ND	2.0000		20.8000
Zinc, total	ug/L	MW-26	10/28/2014		38.7000	*	20.8000
Zinc, total	ug/L	MW-26	04/28/2015	ND	6.9500		20.8000
Zinc, total	ug/L	MW-26	10/20/2015	ND	8.0000		20.8000
Zinc, total	ug/L	MW-26	04/11/2016	ND	8.0000		20.8000
Zinc, total	ug/L	MW-26	10/11/2016	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	04/13/2017	ND	8.0000		20.8000
Zinc, total	ug/L	MW-26	10/26/2017	ND	8.0000		20.8000
Zinc, total	ug/L	MW-26	04/11/2018	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	10/16/2018		22.1000	*	20.8000
Zinc, total	ug/L	MW-26	04/17/2019	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	10/15/2019	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	04/06/2020	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	10/14/2020	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	04/12/2021	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	10/06/2021	ND	20.0000		20.8000
Zinc, total	ug/L	MW-26	04/14/2022	ND	20.0000		20.8000

* - Significantly increased over background.

** - Detect at limit for 100% NDs in background (NPPL only).

*** - Manual exclusion.

ND = Not Detected, Result = detection limit.

Table 8

**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Zinc, total	ug/L	MW-26	10/25/2022	ND	20.0000	20.8000
Zinc, total	ug/L	MW-26	04/03/2023	ND	20.0000	20.8000
Zinc, total	ug/L	MW-26	10/16/2023	ND	20.0000	20.8000
Zinc, total	ug/L	MW-26	04/22/2024	ND	20.0000	20.8000
Zinc, total	ug/L	MW-26	10/07/2024	ND	20.0000	20.8000
Zinc, total	ug/L	MW-26	04/01/2025		7.4000	20.8000
Zinc, total	ug/L	MW-26	10/13/2025		21.5000 *	20.8000
Barium, total	ug/L	MW-32	04/11/2018		247.0000	270.5859
Barium, total	ug/L	MW-32	10/16/2018		199.0000	270.5859
Barium, total	ug/L	MW-32	04/18/2019		238.0000	270.5859
Barium, total	ug/L	MW-32	10/16/2019		199.0000	270.5859
Barium, total	ug/L	MW-32	04/06/2020		205.0000	270.5859
Barium, total	ug/L	MW-32	10/13/2020		188.0000	270.5859
Barium, total	ug/L	MW-32	04/12/2021		254.0000	270.5859
Barium, total	ug/L	MW-32	07/01/2021		219.0000	270.5859
Barium, total	ug/L	MW-32	10/06/2021		197.0000	270.5859
Barium, total	ug/L	MW-32	04/14/2022		206.0000	270.5859
Barium, total	ug/L	MW-32	10/25/2022		281.0000 *	270.5859
Barium, total	ug/L	MW-32	04/03/2023		344.0000 *	270.5859
Barium, total	ug/L	MW-32	10/16/2023		460.0000 *	270.5859
Barium, total	ug/L	MW-32	04/22/2024		421.0000 *	270.5859
Barium, total	ug/L	MW-32	10/07/2024		326.0000 *	270.5859
Barium, total	ug/L	MW-32	04/01/2025		444.0000 *	270.5859
Barium, total	ug/L	MW-32	10/13/2025		305.0000 *	270.5859
Cobalt, total	ug/L	MW-32	01/17/2018		1.7000 *	0.7000
Cobalt, total	ug/L	MW-32	04/11/2018		1.0000 *	0.7000
Cobalt, total	ug/L	MW-32	10/16/2018	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-32	04/18/2019		0.8000 *	0.7000
Cobalt, total	ug/L	MW-32	10/16/2019	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-32	04/06/2020		0.7000	0.7000
Cobalt, total	ug/L	MW-32	10/13/2020	ND	0.4000	0.7000
Cobalt, total	ug/L	MW-32	04/12/2021		0.4000	0.7000
Cobalt, total	ug/L	MW-32	10/06/2021	ND	0.4000	0.7000
Cobalt, total	ug/L	MW-32	04/14/2022		0.4000	0.7000
Cobalt, total	ug/L	MW-32	10/25/2022		2.3000 *	0.7000
Cobalt, total	ug/L	MW-32	04/03/2023		0.6000	0.7000
Cobalt, total	ug/L	MW-32	10/16/2023	ND	0.4000	0.7000
Cobalt, total	ug/L	MW-32	04/22/2024		1.4000 *	0.7000
Cobalt, total	ug/L	MW-32	10/07/2024		0.4000	0.7000
Cobalt, total	ug/L	MW-32	04/01/2025		0.9000 *	0.7000
Cobalt, total	ug/L	MW-32	10/13/2025	ND	0.5000	0.7000
Cobalt, total	ug/L	MW-33	07/02/2018	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-33	10/16/2018	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-33	04/18/2019		6.2000 *	0.7000
Cobalt, total	ug/L	MW-33	10/16/2019	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-33	04/06/2020		2.7000 *	0.7000
Cobalt, total	ug/L	MW-33	07/01/2020	ND	0.4000	0.7000
Cobalt, total	ug/L	MW-33	10/13/2020	ND	0.4000	0.7000
Cobalt, total	ug/L	MW-33	04/12/2021	ND	0.4000	0.7000
Cobalt, total	ug/L	MW-33	10/06/2021		0.5000	0.7000
Cobalt, total	ug/L	MW-33	04/14/2022		1.9000 *	0.7000
Cobalt, total	ug/L	MW-33	07/13/2022		2.0000 *	0.7000
Cobalt, total	ug/L	MW-33	10/25/2022		16.1000 *	0.7000
Cobalt, total	ug/L	MW-33	04/03/2023		1.4000 *	0.7000
Cobalt, total	ug/L	MW-33	10/16/2023		149.0000 *	0.7000
Cobalt, total	ug/L	MW-33	04/22/2024		86.3000 *	0.7000
Cobalt, total	ug/L	MW-33	04/01/2025		18.7000 *	0.7000
Cobalt, total	ug/L	MW-33	10/13/2025		3.5000 *	0.7000
Nickel, total	ug/L	MW-33	07/02/2018	ND	4.0000	11.6000
Nickel, total	ug/L	MW-33	10/16/2018	ND	4.0000	11.6000
Nickel, total	ug/L	MW-33	04/18/2019		7.5000	11.6000
Nickel, total	ug/L	MW-33	10/16/2019	ND	4.0000	11.6000
Nickel, total	ug/L	MW-33	04/06/2020		4.2000	11.6000
Nickel, total	ug/L	MW-33	10/13/2020	ND	4.0000	11.6000
Nickel, total	ug/L	MW-33	04/12/2021	ND	4.0000	11.6000
Nickel, total	ug/L	MW-33	10/06/2021	ND	4.0000	11.6000
Nickel, total	ug/L	MW-33	04/14/2022	ND	4.0000	11.6000
Nickel, total	ug/L	MW-33	10/25/2022		5.1000	11.6000
Nickel, total	ug/L	MW-33	04/03/2023		5.8000	11.6000
Nickel, total	ug/L	MW-33	10/16/2023		46.9000 *	11.6000
Nickel, total	ug/L	MW-33	04/22/2024		112.0000 *	11.6000

* - Significantly increased over background.

** - Detect at limit for 100% NDs in background (NPPL only).

*** - Manual exclusion.

ND = Not Detected, Result = detection limit.

Table 8

**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	MW-33	04/01/2025		15.0000	*	11.6000
Nickel, total	ug/L	MW-33	10/13/2025		7.6000		11.6000
Arsenic, total	ug/L	MW-9	10/17/2007		15.0000	*	4.0000
Arsenic, total	ug/L	MW-9	01/11/2008		12.7000	*	4.0000
Arsenic, total	ug/L	MW-9	04/10/2008		4.4300	*	4.0000
Arsenic, total	ug/L	MW-9	07/17/2008		9.9300	*	4.0000
Arsenic, total	ug/L	MW-9	10/21/2008		8.0200	*	4.0000
Arsenic, total	ug/L	MW-9	04/13/2009		4.5200	*	4.0000
Arsenic, total	ug/L	MW-9	10/14/2009		3.4000		4.0000
Arsenic, total	ug/L	MW-9	04/20/2010		4.3400	*	4.0000
Arsenic, total	ug/L	MW-9	10/13/2010		6.3100	*	4.0000
Arsenic, total	ug/L	MW-9	04/14/2011		5.2000	*	4.0000
Arsenic, total	ug/L	MW-9	10/11/2011		15.9000	*	4.0000
Arsenic, total	ug/L	MW-9	04/18/2012		6.6600	*	4.0000
Arsenic, total	ug/L	MW-9	10/11/2012		327.0000	*	4.0000
Arsenic, total	ug/L	MW-9	04/23/2013	ND	1.0000		4.0000
Arsenic, total	ug/L	MW-9	10/29/2013		4.5300	*	4.0000
Arsenic, total	ug/L	MW-9	04/23/2014		8.2700	*	4.0000
Arsenic, total	ug/L	MW-9	10/24/2014		3.3400		4.0000
Arsenic, total	ug/L	MW-9	10/20/2015	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	04/11/2016		31.9000	*	4.0000
Arsenic, total	ug/L	MW-9	10/12/2016	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	04/12/2017	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	10/25/2017	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	04/11/2018		4.1000	*	4.0000
Arsenic, total	ug/L	MW-9	10/16/2018	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	04/18/2019		14.1000	*	4.0000
Arsenic, total	ug/L	MW-9	10/16/2019	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	04/06/2020		16.8000	*	4.0000
Arsenic, total	ug/L	MW-9	10/14/2020	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	04/12/2021		11.8000	*	4.0000
Arsenic, total	ug/L	MW-9	10/06/2021	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	04/15/2022		10.7000	*	4.0000
Arsenic, total	ug/L	MW-9	10/25/2022		5.1000	*	4.0000
Arsenic, total	ug/L	MW-9	04/03/2023		4.5000	*	4.0000
Arsenic, total	ug/L	MW-9	10/16/2023		6.1000	*	4.0000
Arsenic, total	ug/L	MW-9	04/22/2024	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	10/07/2024		5.1000	*	4.0000
Arsenic, total	ug/L	MW-9	04/01/2025		5.9000	*	4.0000
Arsenic, total	ug/L	MW-9	10/13/2025		7.0000	*	4.0000
Barium, total	ug/L	MW-9	10/17/2007		416.0000	*	270.5859
Barium, total	ug/L	MW-9	01/11/2008		430.0000	*	270.5859
Barium, total	ug/L	MW-9	04/10/2008		421.0000	*	270.5859
Barium, total	ug/L	MW-9	07/17/2008		432.0000	*	270.5859
Barium, total	ug/L	MW-9	10/21/2008		733.0000	*	270.5859
Barium, total	ug/L	MW-9	04/13/2009		420.0000	*	270.5859
Barium, total	ug/L	MW-9	10/14/2009		344.0000	*	270.5859
Barium, total	ug/L	MW-9	04/20/2010		352.0000	*	270.5859
Barium, total	ug/L	MW-9	10/13/2010		353.0000	*	270.5859
Barium, total	ug/L	MW-9	04/14/2011		310.0000	*	270.5859
Barium, total	ug/L	MW-9	10/11/2011		418.0000	*	270.5859
Barium, total	ug/L	MW-9	04/18/2012		373.0000	*	270.5859
Barium, total	ug/L	MW-9	10/11/2012		3370.0000	*	270.5859
Barium, total	ug/L	MW-9	04/23/2013		415.0000	*	270.5859
Barium, total	ug/L	MW-9	10/29/2013		548.0000	*	270.5859
Barium, total	ug/L	MW-9	04/23/2014		525.0000	*	270.5859
Barium, total	ug/L	MW-9	10/24/2014		435.0000	*	270.5859
Barium, total	ug/L	MW-9	10/20/2015		389.0000	*	270.5859
Barium, total	ug/L	MW-9	04/11/2016		608.0000	*	270.5859
Barium, total	ug/L	MW-9	10/12/2016		296.0000	*	270.5859
Arsenic, total	ug/L	MW-24	02/18/2011		16.2000	*	4.0000
Arsenic, total	ug/L	MW-24	04/14/2011		15.8000	*	4.0000
Arsenic, total	ug/L	MW-24	06/21/2011		16.0000	*	4.0000
Arsenic, total	ug/L	MW-24	12/29/2011		11.6000	*	4.0000
Arsenic, total	ug/L	MW-24	05/05/2014		11.1000	*	4.0000
Arsenic, total	ug/L	MW-24	10/29/2014		13.5000	*	4.0000
Arsenic, total	ug/L	MW-24	04/28/2015		10.7000	*	4.0000
Arsenic, total	ug/L	MW-24	10/21/2015		12.4000	*	4.0000
Arsenic, total	ug/L	MW-24	04/11/2016	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-24	10/11/2016		4.5000	*	4.0000
Arsenic, total	ug/L	MW-24	04/12/2017	ND	4.0000		4.0000

* - Significantly increased over background.

** - Detect at limit for 100% NDs in background (NPPL only).

*** - Manual exclusion.

ND = Not Detected, Result = detection limit.

Table 8

**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Arsenic, total	ug/L	MW-24	10/26/2017		18.6000 *	4.0000
Arsenic, total	ug/L	MW-24	04/11/2018		6.2000 *	4.0000
Arsenic, total	ug/L	MW-24	10/16/2018	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	04/18/2019	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	10/15/2019	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	04/06/2020	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	10/13/2020		13.4000 *	4.0000
Arsenic, total	ug/L	MW-24	04/12/2021	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	10/06/2021		12.1000 *	4.0000
Arsenic, total	ug/L	MW-24	04/14/2022	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	10/25/2022		16.0000 *	4.0000
Arsenic, total	ug/L	MW-24	04/03/2023	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-24	04/22/2024		10.8000 *	4.0000
Arsenic, total	ug/L	MW-24	04/01/2025		4.8000 *	4.0000
Arsenic, total	ug/L	MW-24	10/13/2025		18.5000 *	4.0000
Barium, total	ug/L	MW-24	02/18/2011		461.0000 *	270.5859
Barium, total	ug/L	MW-24	04/14/2011		476.0000 *	270.5859
Barium, total	ug/L	MW-24	06/21/2011		413.0000 *	270.5859
Barium, total	ug/L	MW-24	12/29/2011		529.0000 *	270.5859
Barium, total	ug/L	MW-24	05/05/2014		507.0000 *	270.5859
Barium, total	ug/L	MW-24	10/29/2014		532.0000 *	270.5859
Barium, total	ug/L	MW-24	04/28/2015		559.0000 *	270.5859
Barium, total	ug/L	MW-24	10/21/2015		517.0000 *	270.5859
Barium, total	ug/L	MW-24	04/11/2016		505.0000 *	270.5859
Barium, total	ug/L	MW-24	10/11/2016		490.0000 *	270.5859
Barium, total	ug/L	MW-24	04/12/2017		434.0000 *	270.5859
Barium, total	ug/L	MW-24	10/26/2017		519.0000 *	270.5859
Barium, total	ug/L	MW-24	04/11/2018		398.0000 *	270.5859
Barium, total	ug/L	MW-24	10/16/2018		371.0000 *	270.5859
Barium, total	ug/L	MW-24	04/18/2019		371.0000 *	270.5859
Barium, total	ug/L	MW-24	10/15/2019		446.0000 *	270.5859
Barium, total	ug/L	MW-24	04/06/2020		531.0000 *	270.5859
Barium, total	ug/L	MW-24	10/13/2020		491.0000 *	270.5859
Barium, total	ug/L	MW-24	04/12/2021		337.0000 *	270.5859
Barium, total	ug/L	MW-24	10/06/2021		466.0000 *	270.5859
Barium, total	ug/L	MW-24	04/14/2022		350.0000 *	270.5859
Barium, total	ug/L	MW-24	10/25/2022		529.0000 *	270.5859
Barium, total	ug/L	MW-24	04/03/2023		389.0000 *	270.5859
Barium, total	ug/L	MW-24	04/22/2024		490.0000 *	270.5859
Barium, total	ug/L	MW-24	04/01/2025		522.0000 *	270.5859
Barium, total	ug/L	MW-24	10/13/2025		614.0000 *	270.5859
Cobalt, total	ug/L	MW-24	02/18/2011	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-24	04/14/2011	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-24	06/21/2011	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-24	12/29/2011	ND	10.0000	0.7000
Cobalt, total	ug/L	MW-24	05/05/2014		2.9300 *	0.7000
Cobalt, total	ug/L	MW-24	10/29/2014		2.7100 *	0.7000
Cobalt, total	ug/L	MW-24	04/28/2015		3.4700 *	0.7000
Cobalt, total	ug/L	MW-24	10/21/2015		4.2000 *	0.7000
Cobalt, total	ug/L	MW-24	04/11/2016		4.2000 *	0.7000
Cobalt, total	ug/L	MW-24	10/11/2016		2.8000 *	0.7000
Cobalt, total	ug/L	MW-24	04/12/2017		3.1000 *	0.7000
Cobalt, total	ug/L	MW-24	10/26/2017		2.4000 *	0.7000
Cobalt, total	ug/L	MW-24	04/11/2018		1.8000 *	0.7000
Cobalt, total	ug/L	MW-24	10/16/2018		1.0000 *	0.7000
Cobalt, total	ug/L	MW-24	04/18/2019		2.2000 *	0.7000
Cobalt, total	ug/L	MW-24	10/15/2019		1.2000 *	0.7000
Cobalt, total	ug/L	MW-24	04/06/2020		2.5000 *	0.7000
Cobalt, total	ug/L	MW-24	10/13/2020		1.4000 *	0.7000
Cobalt, total	ug/L	MW-24	04/12/2021		1.8000 *	0.7000
Cobalt, total	ug/L	MW-24	10/06/2021		1.5000 *	0.7000
Cobalt, total	ug/L	MW-24	04/14/2022		1.5000 *	0.7000
Cobalt, total	ug/L	MW-24	10/25/2022		0.8000 *	0.7000
Cobalt, total	ug/L	MW-24	04/03/2023		0.8000 *	0.7000
Cobalt, total	ug/L	MW-24	04/22/2024		2.1000 *	0.7000
Cobalt, total	ug/L	MW-24	04/01/2025		1.7000 *	0.7000
Cobalt, total	ug/L	MW-24	10/13/2025		3.9000 *	0.7000
Nickel, total	ug/L	MW-24	02/18/2011	ND	50.0000	11.6000
Nickel, total	ug/L	MW-24	04/14/2011	ND	50.0000	11.6000
Nickel, total	ug/L	MW-24	06/21/2011	ND	50.0000	11.6000
Nickel, total	ug/L	MW-24	12/29/2011	ND	10.0000	11.6000

* - Significantly increased over background.

** - Detect at limit for 100% NDs in background (NPPL only).

*** - Manual exclusion.

ND = Not Detected, Result = detection limit.

Table 8

**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Nickel, total	ug/L	MW-24	05/05/2014		25.0000 *	11.6000
Nickel, total	ug/L	MW-24	10/29/2014		25.3000 *	11.6000
Nickel, total	ug/L	MW-24	04/28/2015		33.6000 *	11.6000
Nickel, total	ug/L	MW-24	10/21/2015		32.0000 *	11.6000
Nickel, total	ug/L	MW-24	04/11/2016		26.1000 *	11.6000
Nickel, total	ug/L	MW-24	10/11/2016		27.9000 *	11.6000
Nickel, total	ug/L	MW-24	04/12/2017		23.1000 *	11.6000
Nickel, total	ug/L	MW-24	10/26/2017		31.6000 *	11.6000
Nickel, total	ug/L	MW-24	04/11/2018		25.9000 *	11.6000
Nickel, total	ug/L	MW-24	10/16/2018		18.3000 *	11.6000
Nickel, total	ug/L	MW-24	04/18/2019		18.8000 *	11.6000
Nickel, total	ug/L	MW-24	10/15/2019		29.0000 *	11.6000
Nickel, total	ug/L	MW-24	04/06/2020		32.5000 *	11.6000
Nickel, total	ug/L	MW-24	10/13/2020		35.0000 *	11.6000
Nickel, total	ug/L	MW-24	04/12/2021		21.1000 *	11.6000
Nickel, total	ug/L	MW-24	10/06/2021		35.5000 *	11.6000
Nickel, total	ug/L	MW-24	04/14/2022		24.5000 *	11.6000
Barium, total	ug/L	MW-9	04/12/2017		346.0000 *	270.5859
Barium, total	ug/L	MW-9	10/25/2017		304.0000 *	270.5859
Barium, total	ug/L	MW-9	04/11/2018		303.0000 *	270.5859
Barium, total	ug/L	MW-9	10/16/2018		605.0000 *	270.5859
Barium, total	ug/L	MW-9	04/18/2019		432.0000 *	270.5859
Barium, total	ug/L	MW-9	10/16/2019		270.0000 *	270.5859
Barium, total	ug/L	MW-9	04/06/2020		474.0000 *	270.5859
Barium, total	ug/L	MW-9	10/14/2020		281.0000 *	270.5859
Barium, total	ug/L	MW-9	04/12/2021		369.0000 *	270.5859
Barium, total	ug/L	MW-9	10/06/2021		285.0000 *	270.5859
Barium, total	ug/L	MW-9	04/15/2022		379.0000 *	270.5859
Barium, total	ug/L	MW-9	10/25/2022		353.0000 *	270.5859
Barium, total	ug/L	MW-9	04/03/2023		334.0000 *	270.5859
Barium, total	ug/L	MW-9	10/16/2023		435.0000 *	270.5859
Barium, total	ug/L	MW-9	04/22/2024		394.0000 *	270.5859
Barium, total	ug/L	MW-9	10/07/2024		519.0000 *	270.5859
Barium, total	ug/L	MW-9	04/01/2025		559.0000 *	270.5859
Barium, total	ug/L	MW-9	10/13/2025		399.0000 *	270.5859
Cobalt, total	ug/L	MW-9	10/17/2007	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	01/11/2008	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	04/10/2008	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	07/17/2008	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	10/21/2008	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	04/13/2009	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	10/14/2009	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	04/20/2010	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	10/13/2010	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	04/14/2011	ND	20.0000	0.7000
Cobalt, total	ug/L	MW-9	10/11/2011	ND	10.0000	0.7000
Cobalt, total	ug/L	MW-9	04/18/2012	ND	10.0000	0.7000
Cobalt, total	ug/L	MW-9	10/11/2012	ND	10.0000	0.7000
Cobalt, total	ug/L	MW-9	04/23/2013	ND	10.0000	0.7000
Cobalt, total	ug/L	MW-9	10/29/2013		2.8700 *	0.7000
Cobalt, total	ug/L	MW-9	04/23/2014		4.1300 *	0.7000
Cobalt, total	ug/L	MW-9	10/24/2014		1.6500 *	0.7000
Cobalt, total	ug/L	MW-9	10/20/2015		0.9000 *	0.7000
Cobalt, total	ug/L	MW-9	04/11/2016		1.3000 *	0.7000
Cobalt, total	ug/L	MW-9	10/12/2016	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-9	04/12/2017		1.1000 *	0.7000
Cobalt, total	ug/L	MW-9	10/25/2017	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-9	04/11/2018		1.0000 *	0.7000
Cobalt, total	ug/L	MW-9	10/16/2018	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-9	04/18/2019		0.9000 *	0.7000
Cobalt, total	ug/L	MW-9	10/16/2019	ND	0.8000	0.7000
Cobalt, total	ug/L	MW-9	04/06/2020		0.9000 *	0.7000
Cobalt, total	ug/L	MW-9	10/14/2020		0.5000	0.7000
Cobalt, total	ug/L	MW-9	04/12/2021		1.0000 *	0.7000
Cobalt, total	ug/L	MW-9	10/06/2021		0.6000	0.7000
Cobalt, total	ug/L	MW-9	04/15/2022		1.5000 *	0.7000
Cobalt, total	ug/L	MW-9	10/25/2022		0.7000	0.7000
Cobalt, total	ug/L	MW-9	04/03/2023		1.1000 *	0.7000
Cobalt, total	ug/L	MW-9	10/16/2023		1.7000 *	0.7000
Cobalt, total	ug/L	MW-9	04/22/2024		1.6000 *	0.7000
Cobalt, total	ug/L	MW-9	10/07/2024		1.7000 *	0.7000

* - Significantly increased over background.

** - Detect at limit for 100% NDs in background (NPPL only).

*** - Manual exclusion.

ND = Not Detected, Result = detection limit.

Table 8**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Cobalt, total	ug/L	MW-9	04/01/2025		1.8000	*	0.7000
Cobalt, total	ug/L	MW-9	10/13/2025		1.1000	*	0.7000

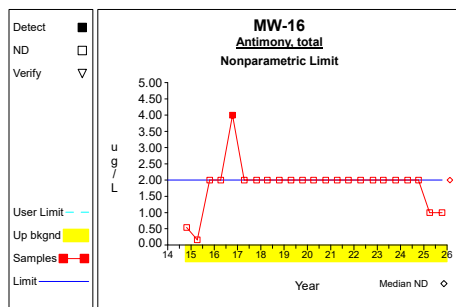
* - Significantly increased over background.

** - Detect at limit for 100% NDs in background (NPPL only).

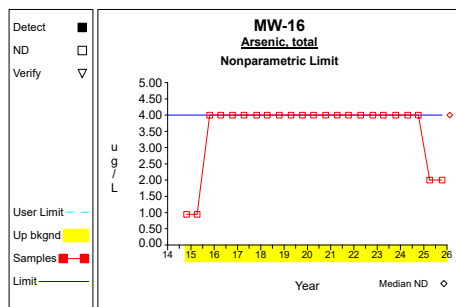
*** - Manual exclusion.

ND = Not Detected, Result = detection limit.

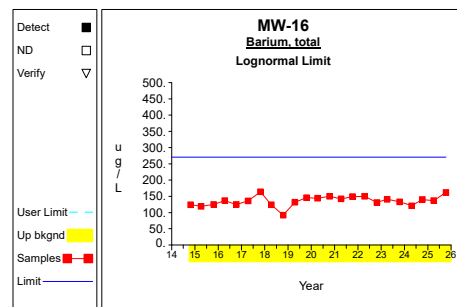
Up vs. Down Prediction Limits



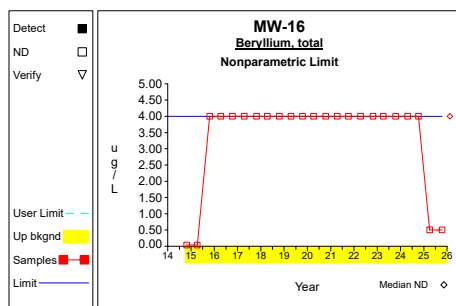
Graph 1



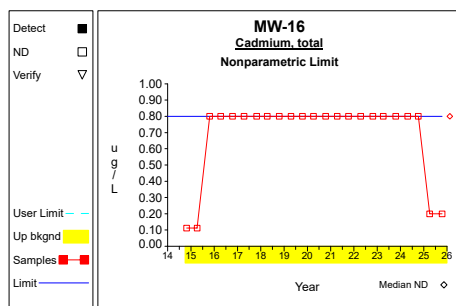
Graph 2



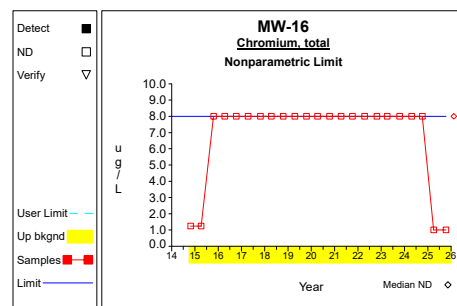
Graph 3



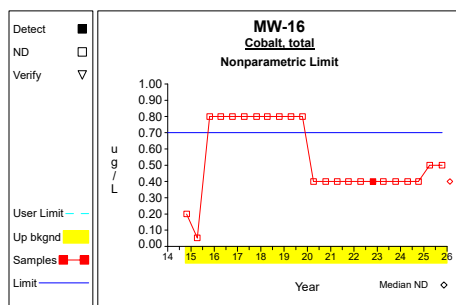
Graph 4



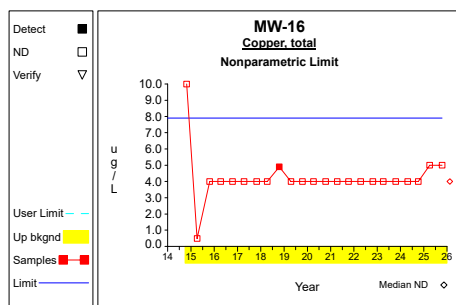
Graph 5



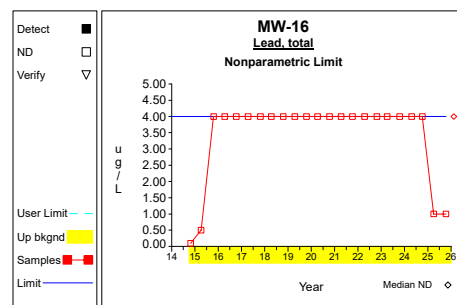
Graph 6



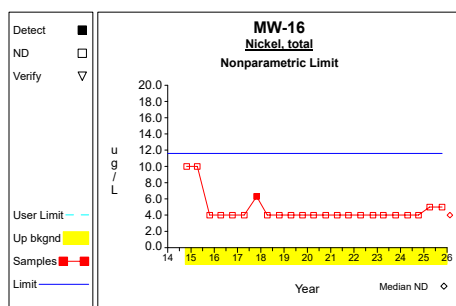
Graph 7



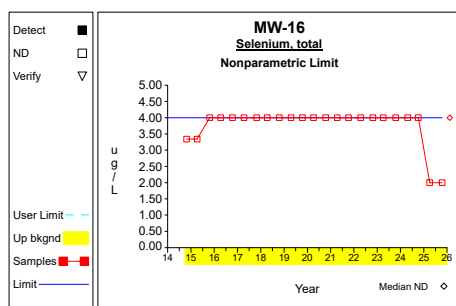
Graph 8



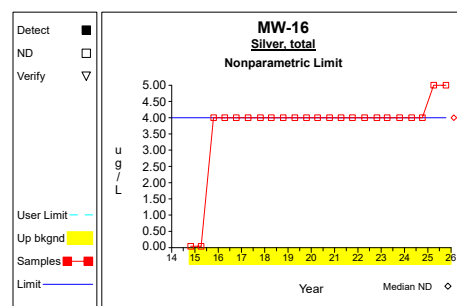
Graph 9



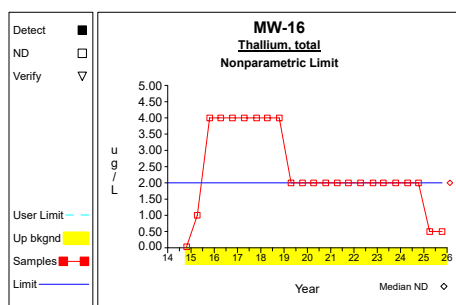
Graph 10



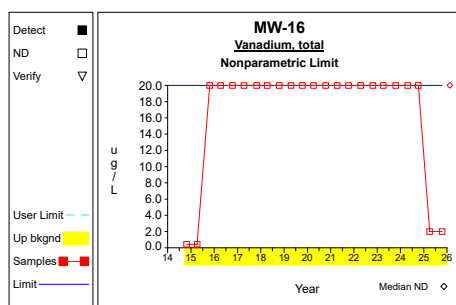
Graph 11



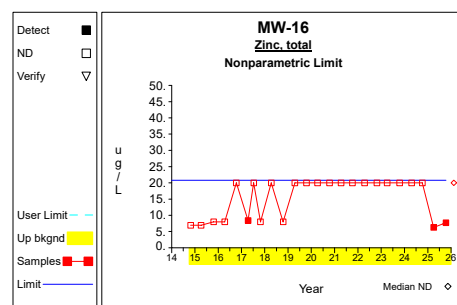
Graph 12



Graph 13

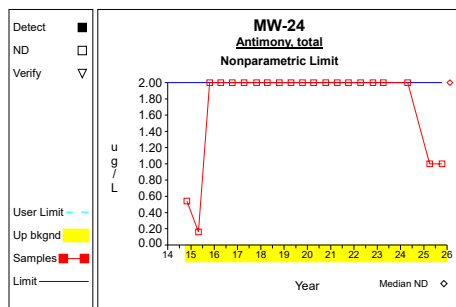


Graph 14

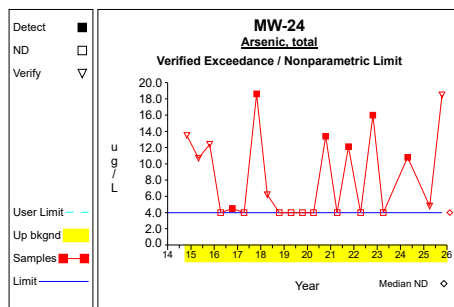


Graph 15

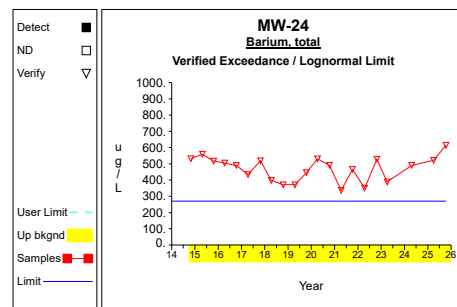
Up vs. Down Prediction Limits



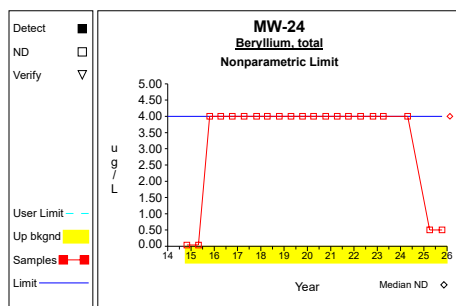
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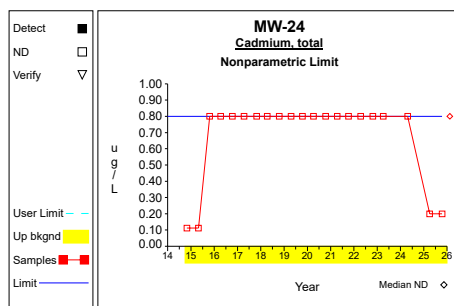
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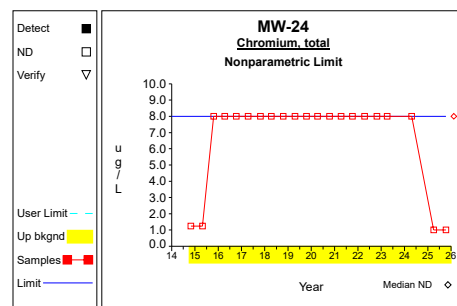
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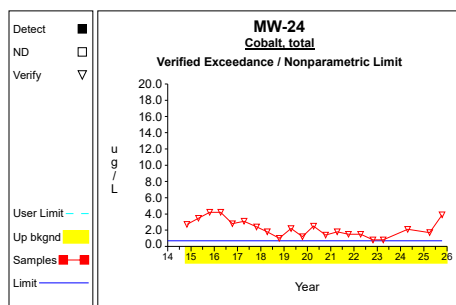
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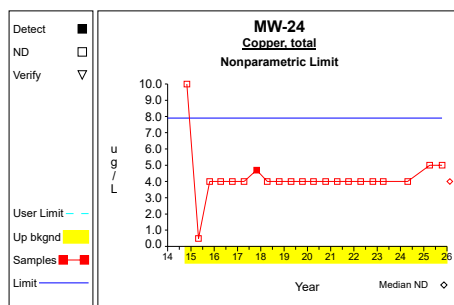
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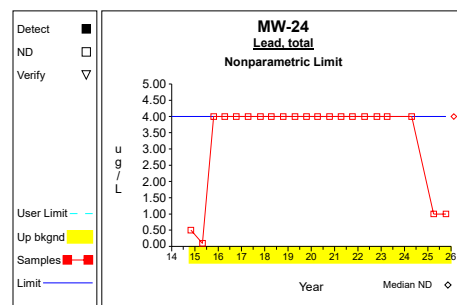
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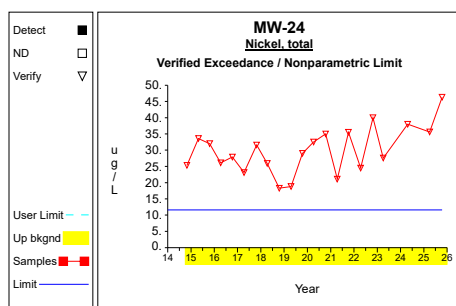
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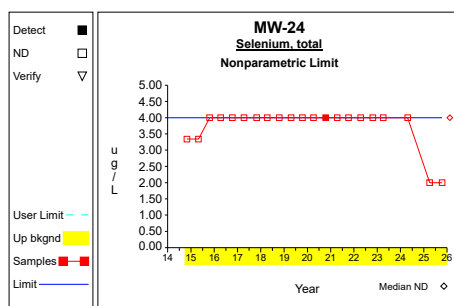
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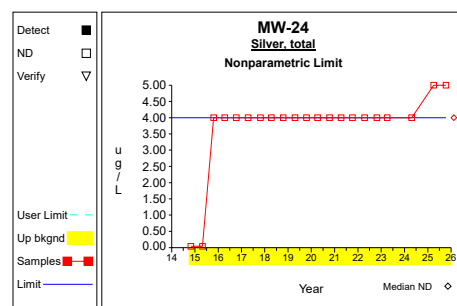
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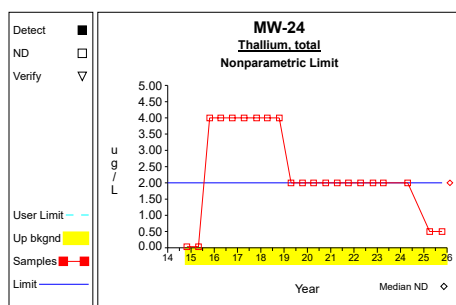
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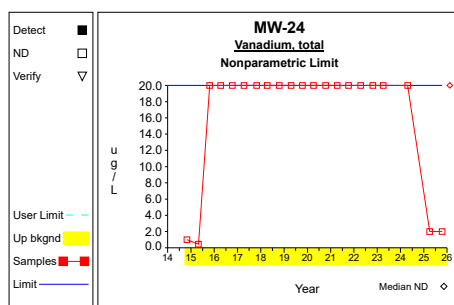
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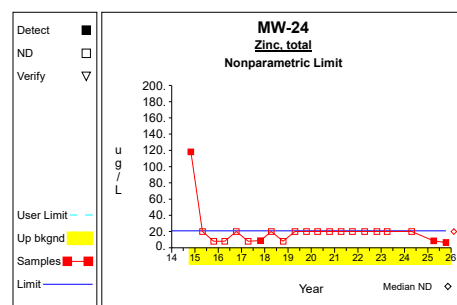
Graph 27



Graph 28

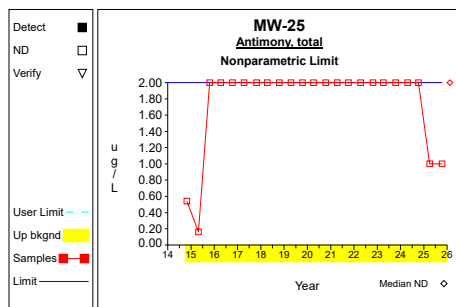


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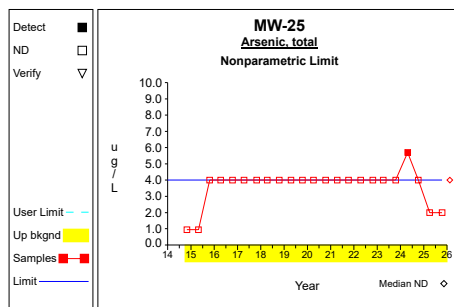


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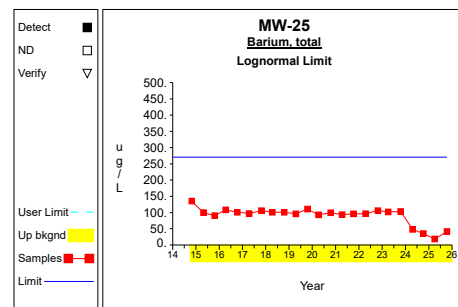
Up vs. Down Prediction Limits



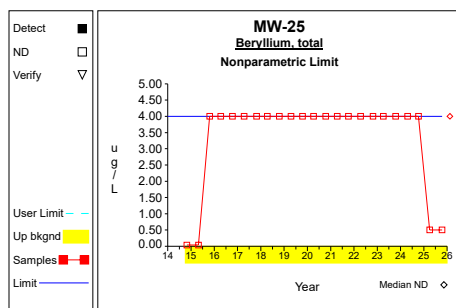
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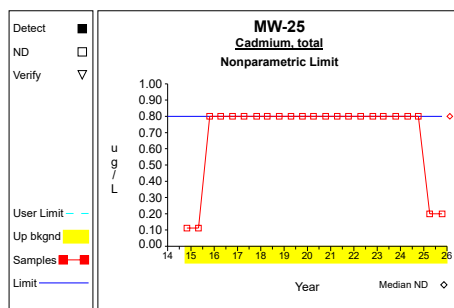
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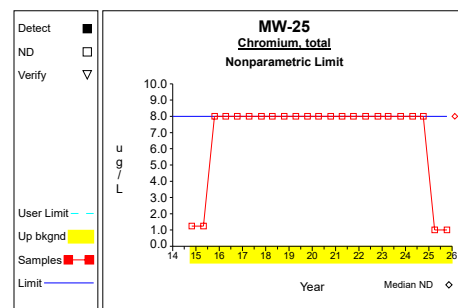
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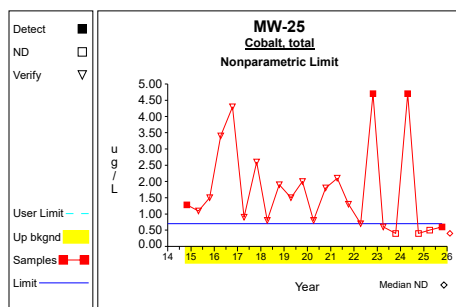
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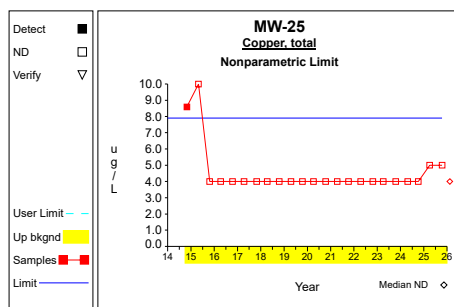
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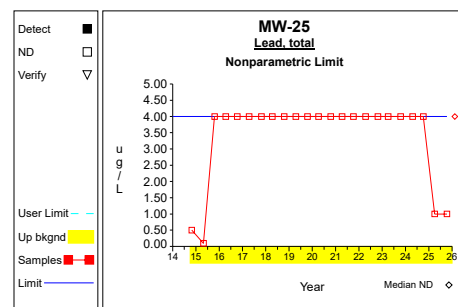
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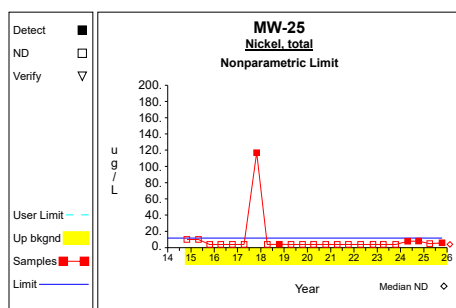
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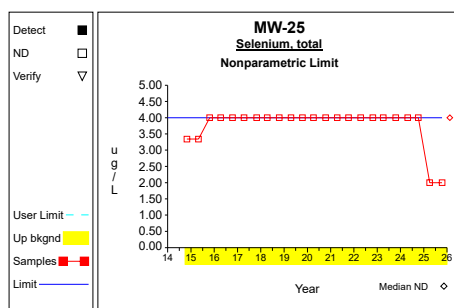
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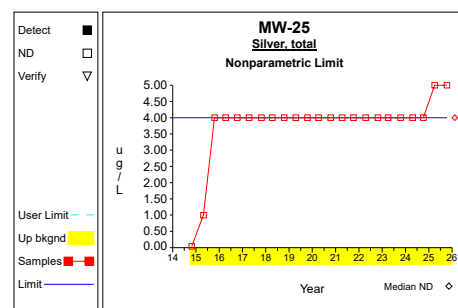
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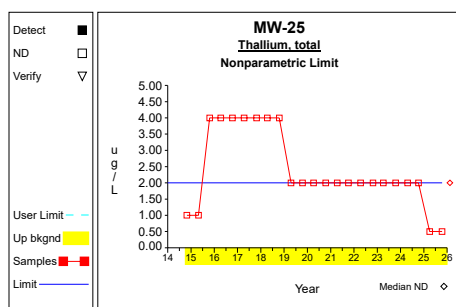
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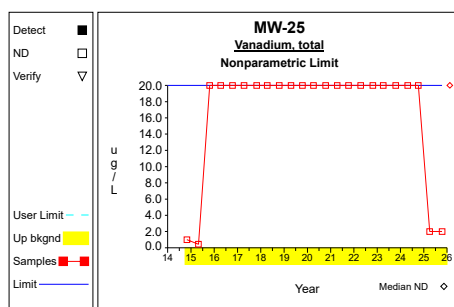
Graph 41



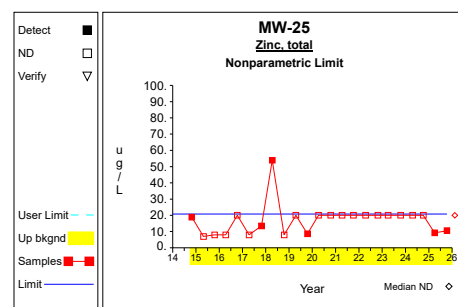
Graph 42



Graph 43

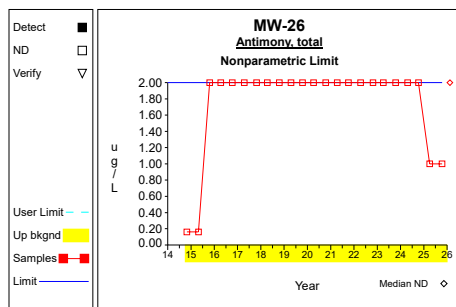


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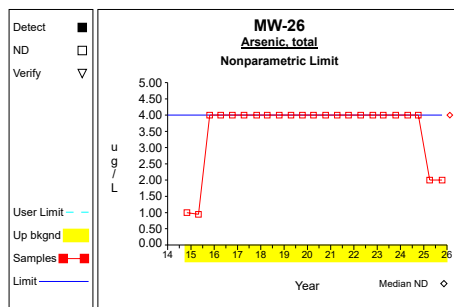


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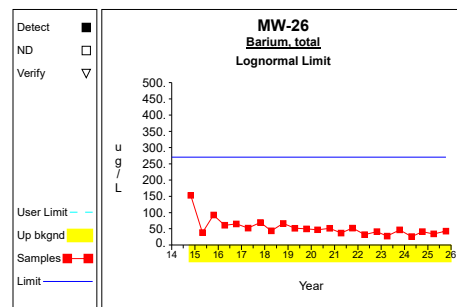
Up vs. Down Prediction Limits



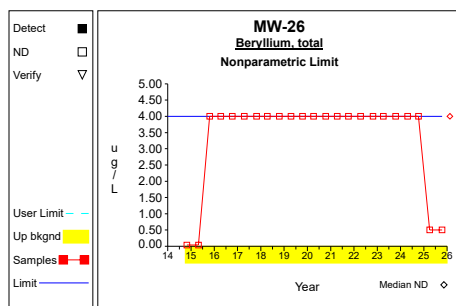
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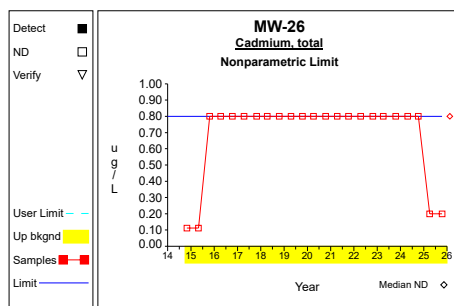
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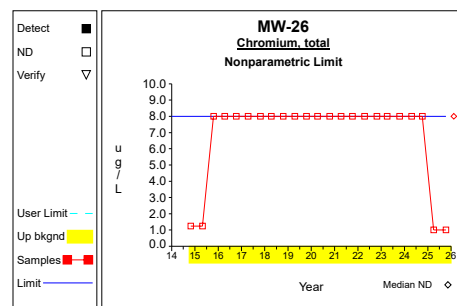
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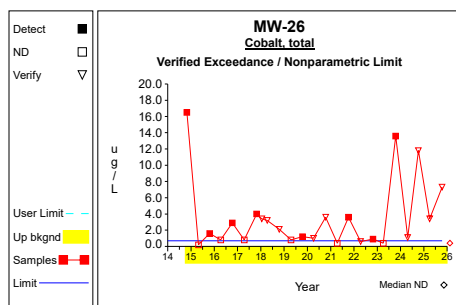
Graph 49



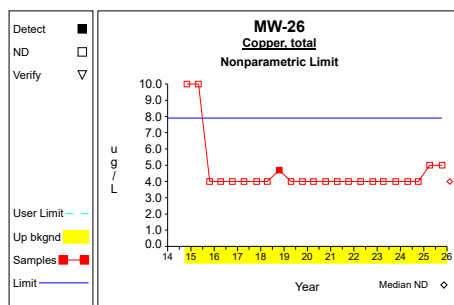
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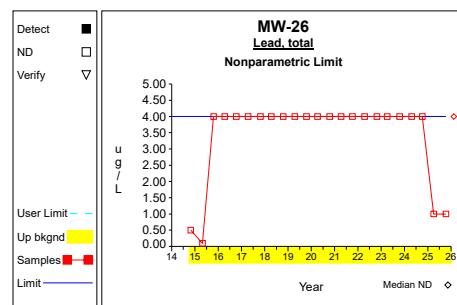
Graph 51



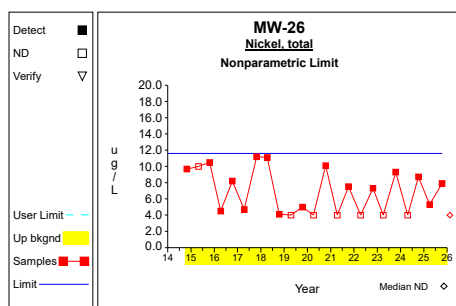
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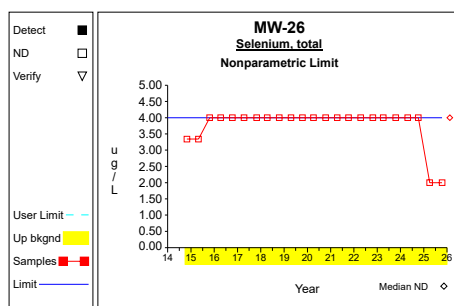
Graph 53



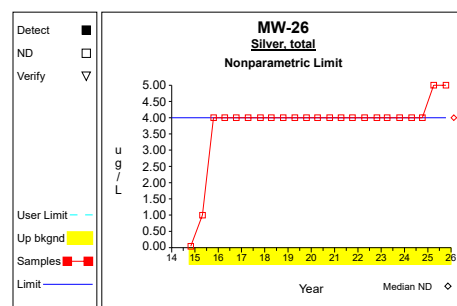
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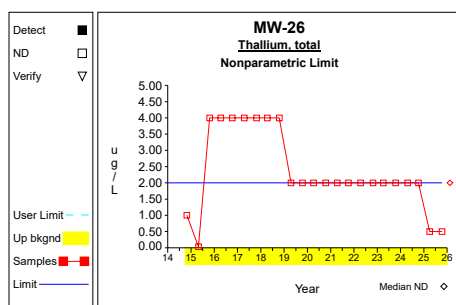
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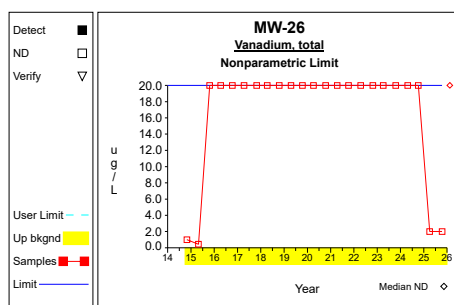
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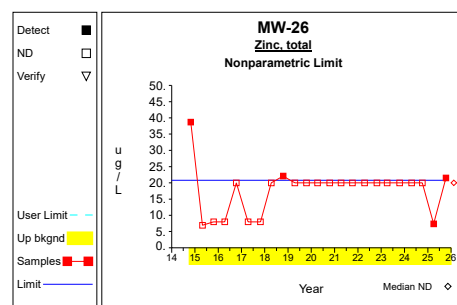
Graph 57



Graph 58

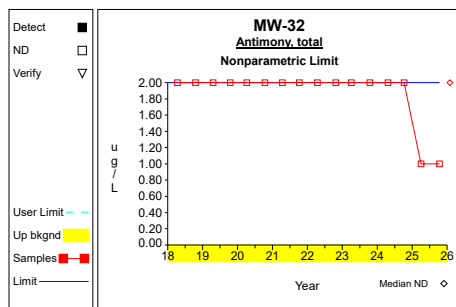


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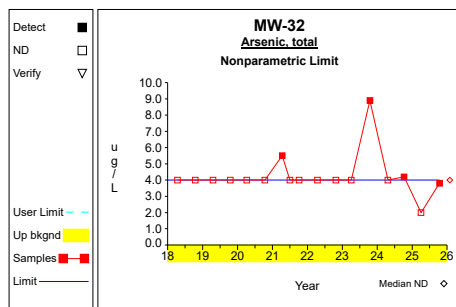


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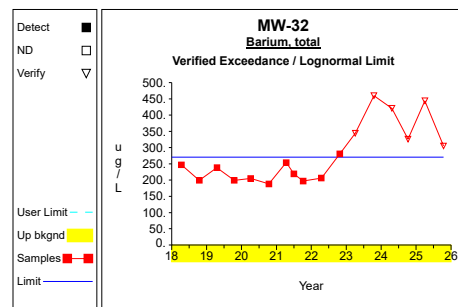
Up vs. Down Prediction Limits



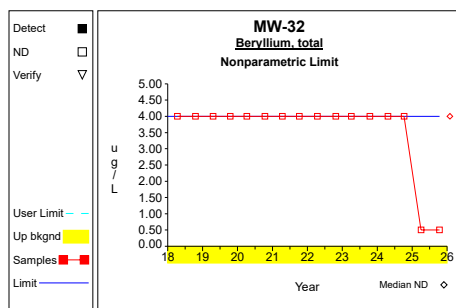
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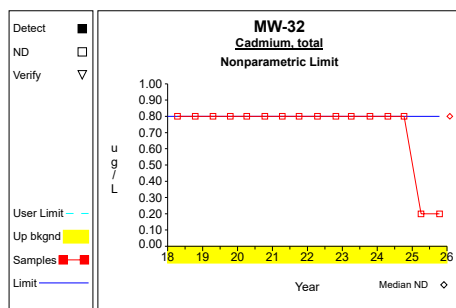
Graph 62



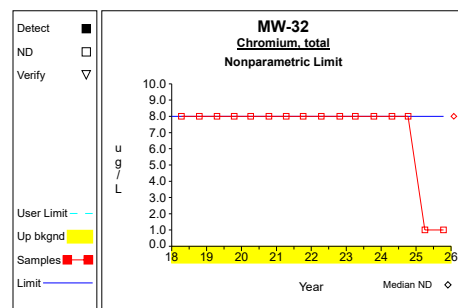
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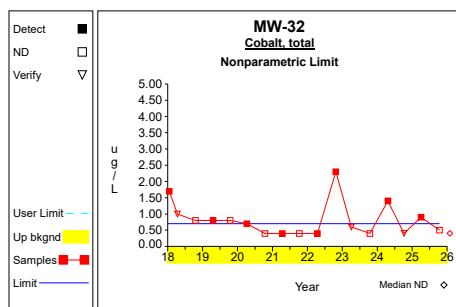
Graph 64



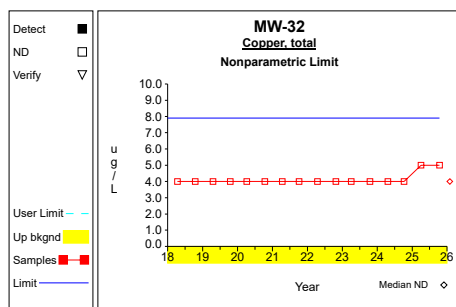
Graph 65



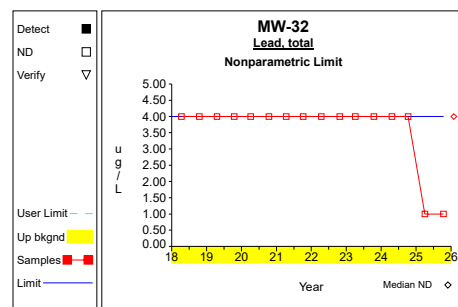
Graph 66



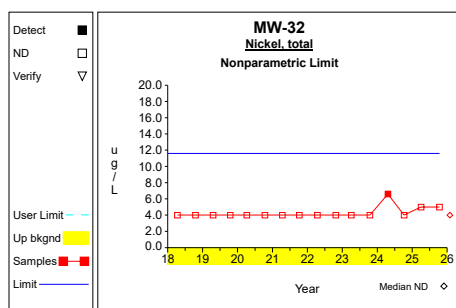
Graph 67



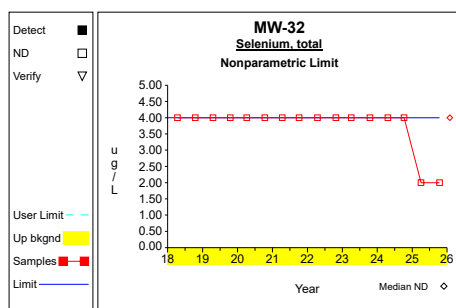
Graph 68



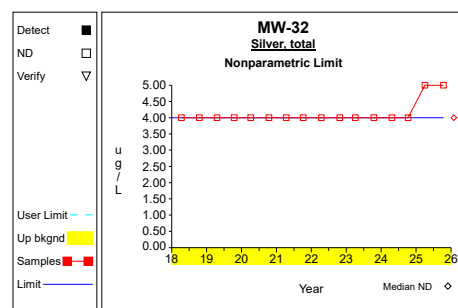
Graph 69



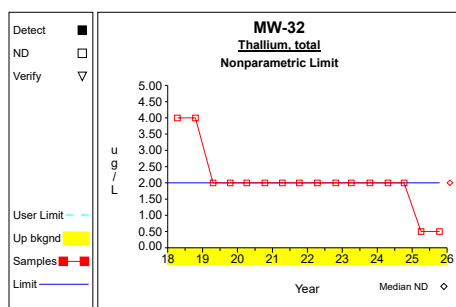
Graph 70



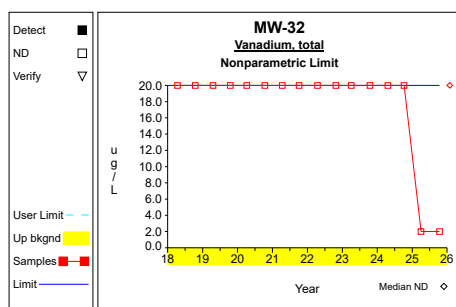
Graph 71



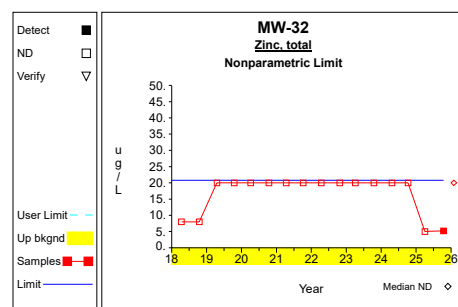
Graph 72



Graph 73

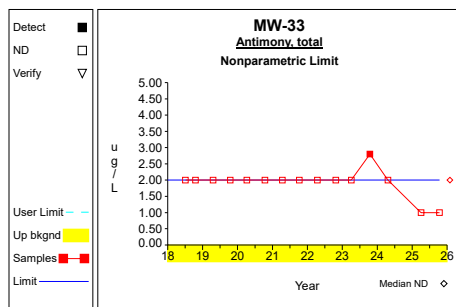


Graph 74

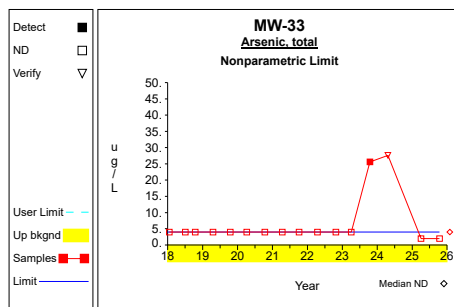


Graph 75

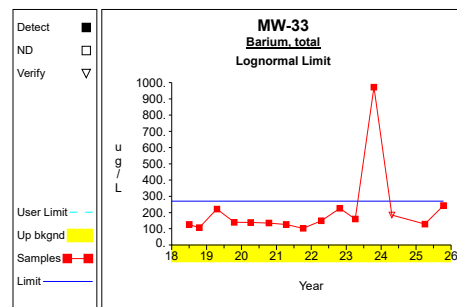
Up vs. Down Prediction Limits



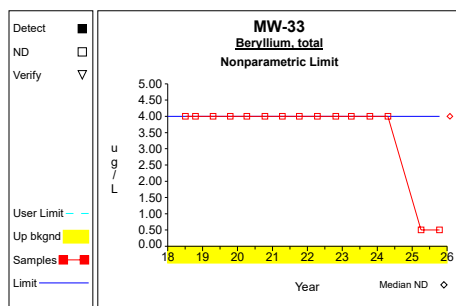
Graph 76



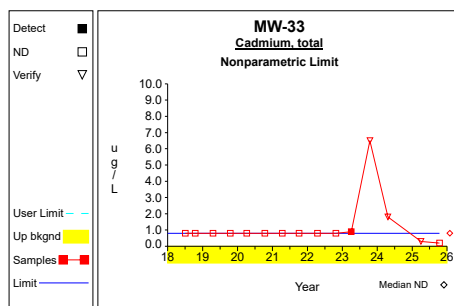
Graph 77



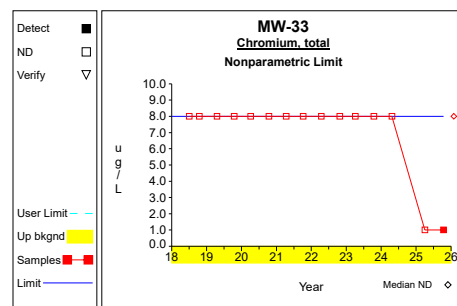
Graph 78



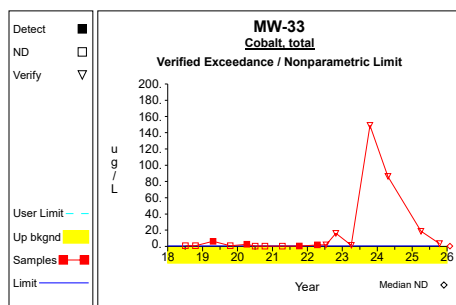
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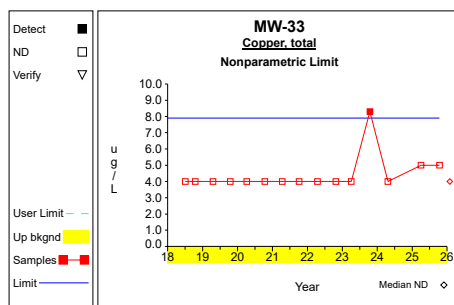
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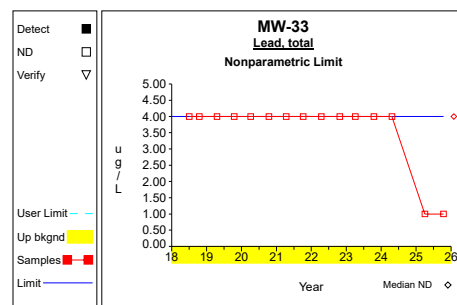
Graph 81



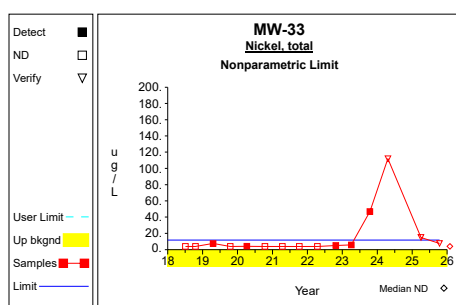
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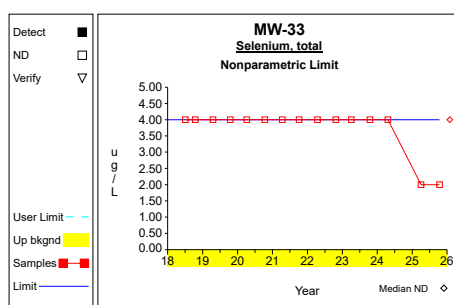
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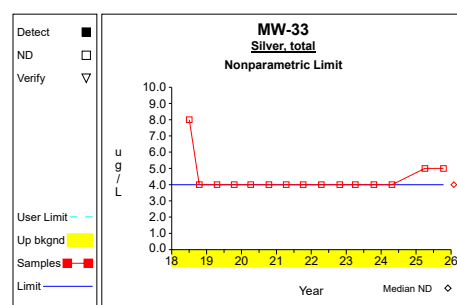
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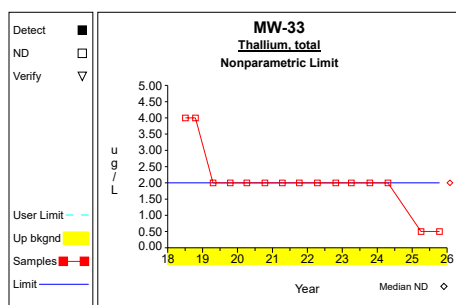
Graph 85



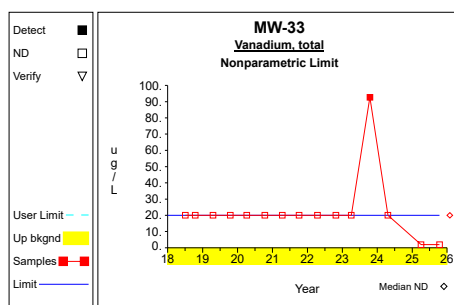
Graph 86



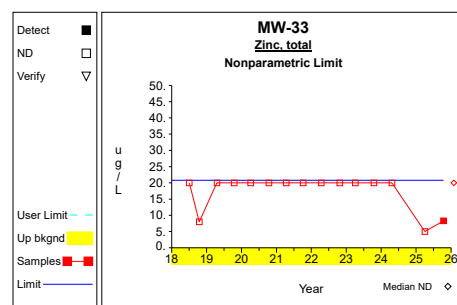
Graph 87



Graph 88

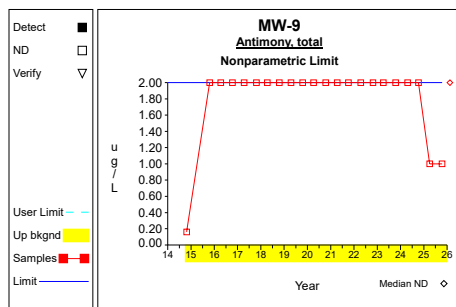


Graph 89

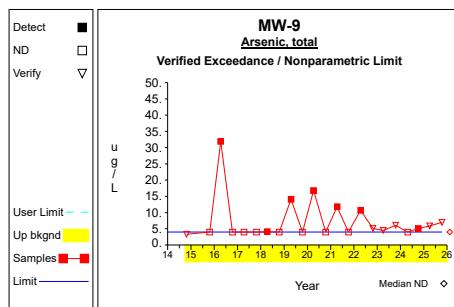


Graph 90

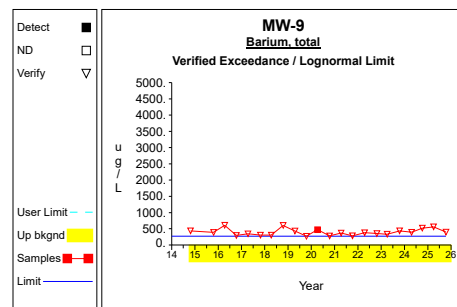
Up vs. Down Prediction Limits



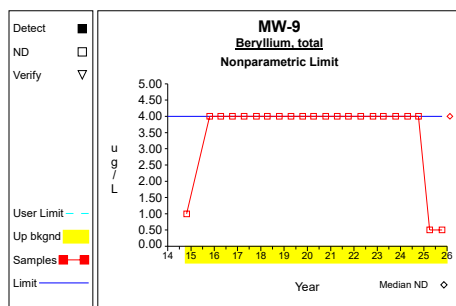
Graph 91



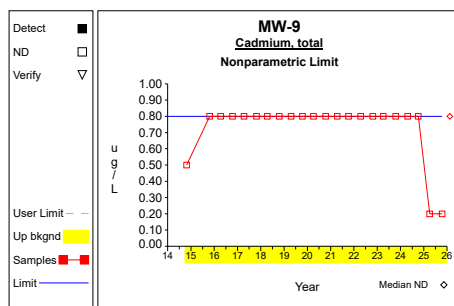
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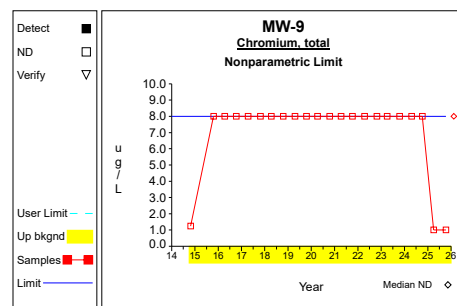
Graph 93



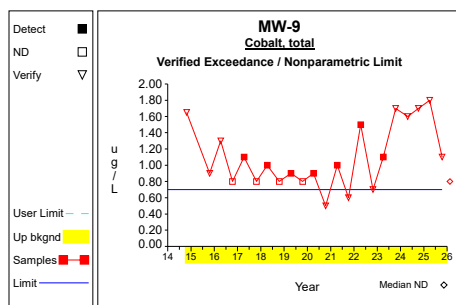
Graph 94



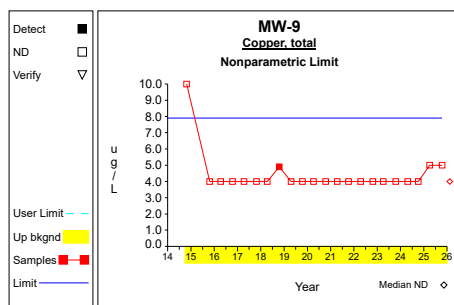
Graph 95



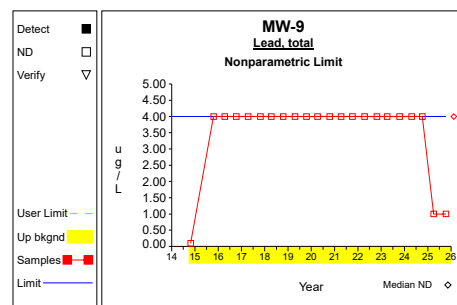
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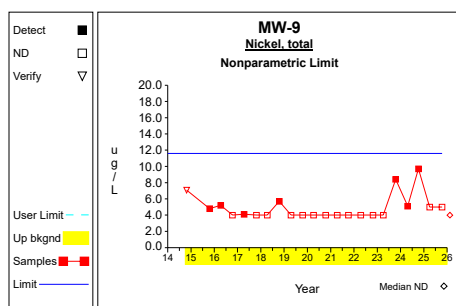
Graph 97



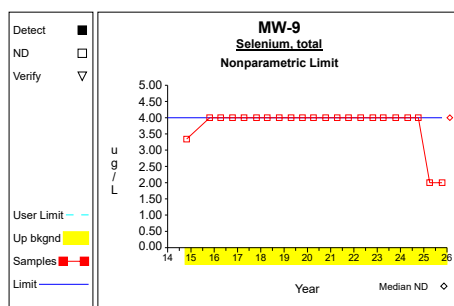
Graph 98



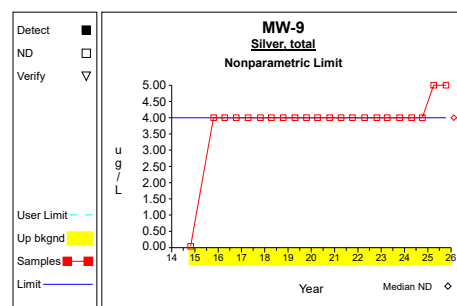
Graph 99



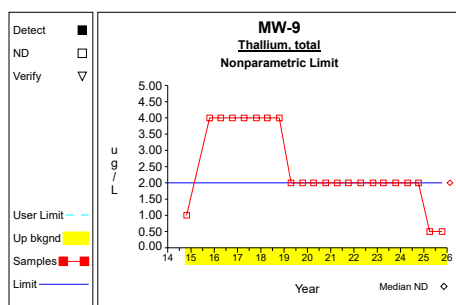
Graph 100



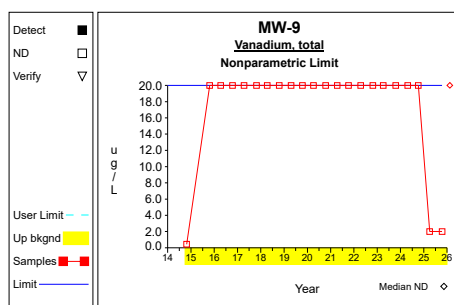
Graph 101



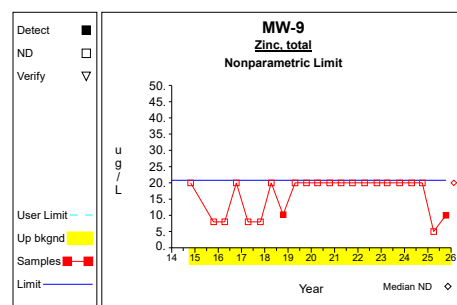
Graph 102



Graph 103

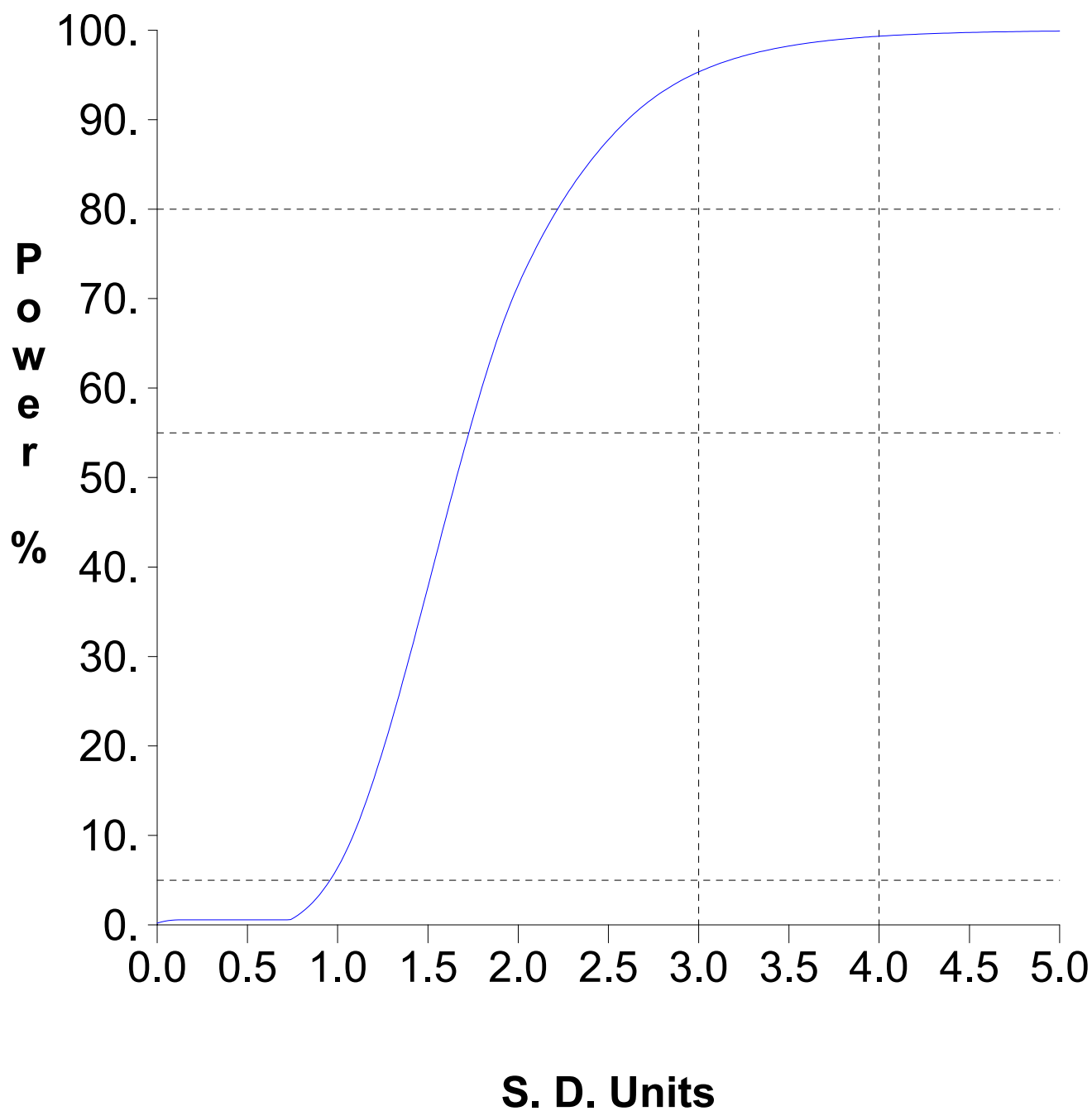


Graph 104



Graph 105

False Positive and False Negative Rates for Current Upgradient vs. Downgradient Monitoring Program



Attachment C

Assessment Statistics

Table 1

**Confidence Intervals for Comparing the Mean of the Last
4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
Arsenic, total	ug/L	MW-24	4	9.025	7.306	1.176	0.431	17.619	10.000	dec
Barium, total	ug/L	MW-24	4	503.750	92.817	1.176	394.571	612.929	2000.000	
Cobalt, total	ug/L	MW-24	4	2.125	1.302	1.176	0.593	3.657	2.100	
Nickel, total	ug/L	MW-24	4	36.875	7.697	1.176	27.821	45.929	100.000	
Zinc, total	ug/L	MW-24	4	8.775	1.654	1.176	6.829	10.721	2000.000	
Arsenic, total	ug/L	MW-25	4	2.925	1.850	1.176	0.749	5.101	10.000	dec
Barium, total	ug/L	MW-25	4	36.025	12.662	1.176	21.131	50.919	2000.000	
Cobalt, total	ug/L	MW-25	4	1.713	1.993	1.176	0.000	4.057	2.100	
Nickel, total	ug/L	MW-25	4	6.000	2.830	1.176	2.672	9.328	100.000	
Zinc, total	ug/L	MW-25	4	9.950	0.574	1.176	9.274	10.626	2000.000	
Arsenic, total	ug/L	MW-26	4	2.000	0.000	1.176	2.000	2.000	10.000	dec
Barium, total	ug/L	MW-26	4	36.000	7.629	1.176	27.026	44.974	2000.000	
Cobalt, total	ug/L	MW-26	4	5.900	4.693	1.176	0.380	11.420	2.100	
Nickel, total	ug/L	MW-26	4	6.725	1.852	1.176	4.547	8.903	100.000	
Zinc, total	ug/L	MW-26	4	12.225	6.304	1.176	4.810	19.640	2000.000	
Arsenic, total	ug/L	MW-32	4	3.000	1.166	1.176	1.628	4.372	10.000	inc
Barium, total	ug/L	MW-32	4	374.000	68.736	1.176	293.146	454.854	2000.000	
Cobalt, total	ug/L	MW-32	4	0.725	0.538	1.176	0.092	1.358	2.100	
Nickel, total	ug/L	MW-32	4	3.150	2.300	1.176	0.445	5.855	100.000	
Zinc, total	ug/L	MW-32	4	8.800	2.400	1.176	5.977	11.623	2000.000	
Arsenic, total	ug/L	MW-33	4	14.300	14.226	1.176	0.000	31.034	10.000	
Barium, total	ug/L	MW-33	4	382.250	395.912	1.176	0.000	847.957	2000.000	
Cobalt, total	ug/L	MW-33	4	64.375	66.918	1.176	0.000	143.090	2.100	
Nickel, total	ug/L	MW-33	4	45.375	47.577	1.176	0.000	101.340	100.000	
Zinc, total	ug/L	MW-33	4	9.575	0.850	1.176	8.575	10.575	2000.000	
Arsenic, total	ug/L	MW-9	4	5.000	2.146	1.176	2.475	7.525	10.000	
Barium, total	ug/L	MW-9	4	467.750	83.902	1.176	369.057	566.443	2000.000	
Cobalt, total	ug/L	MW-9	4	1.550	0.311	1.176	1.184	1.916	2.100	
Nickel, total	ug/L	MW-9	4	4.950	3.396	1.176	0.956	8.944	100.000	
Zinc, total	ug/L	MW-9	4	10.000	0.000	1.176	10.000	10.000	2000.000	

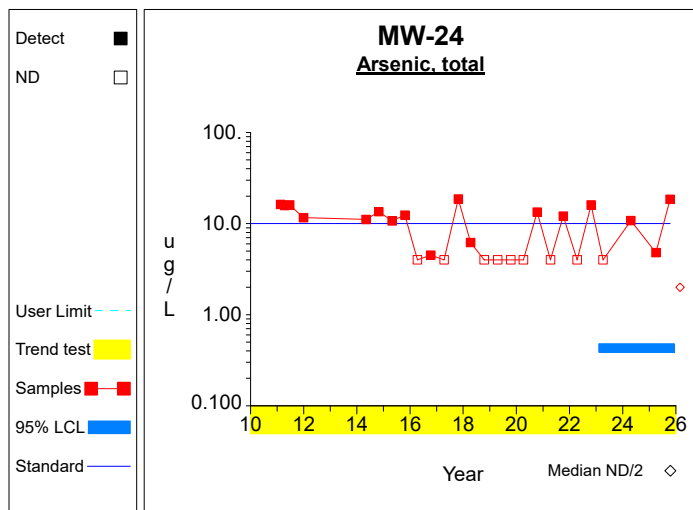
* - Insufficient Data

** - Significant Exceedance

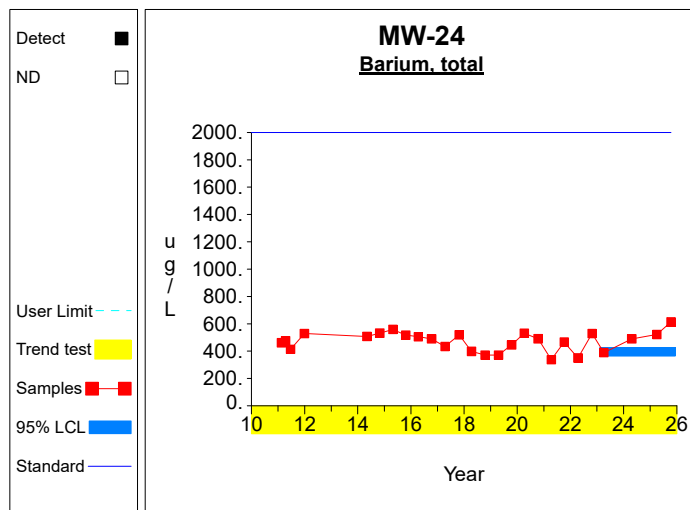
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

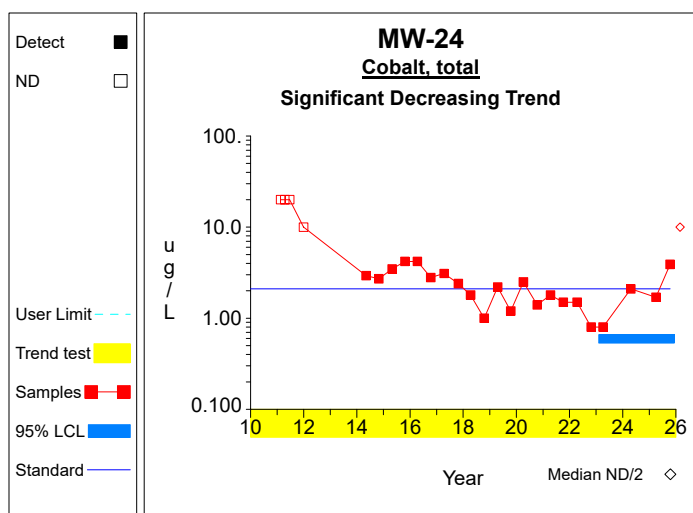
Confidence Limits (Assessment)



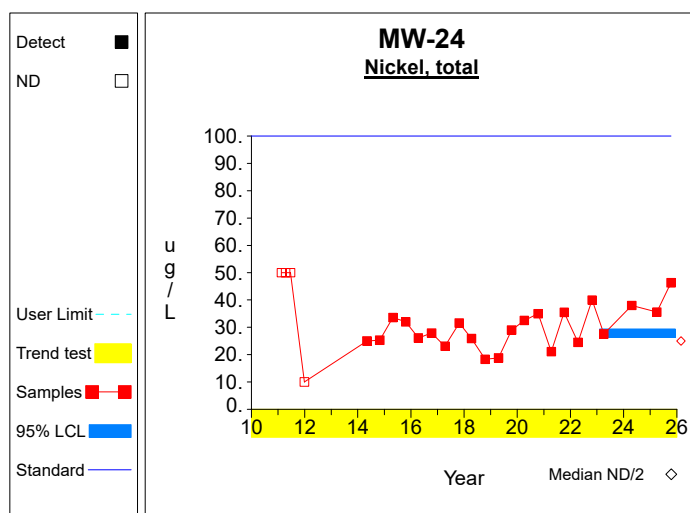
Graph 1



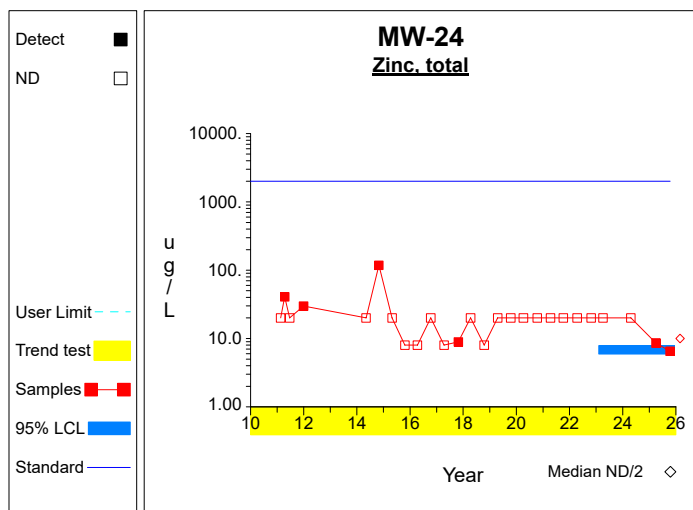
Graph 2



Graph 3

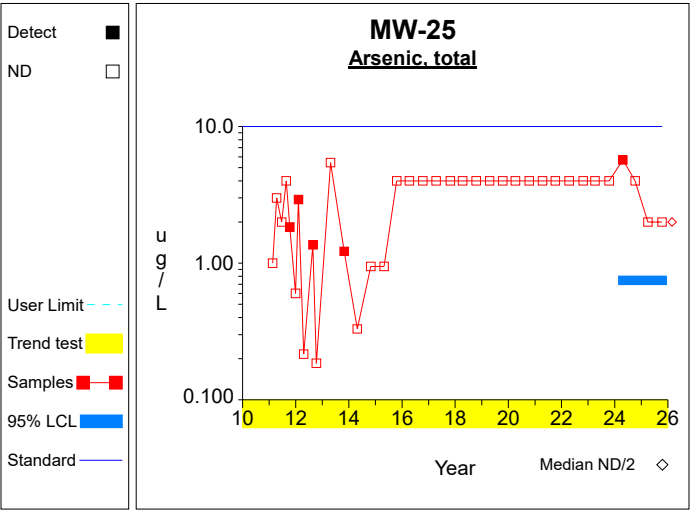


Graph 4

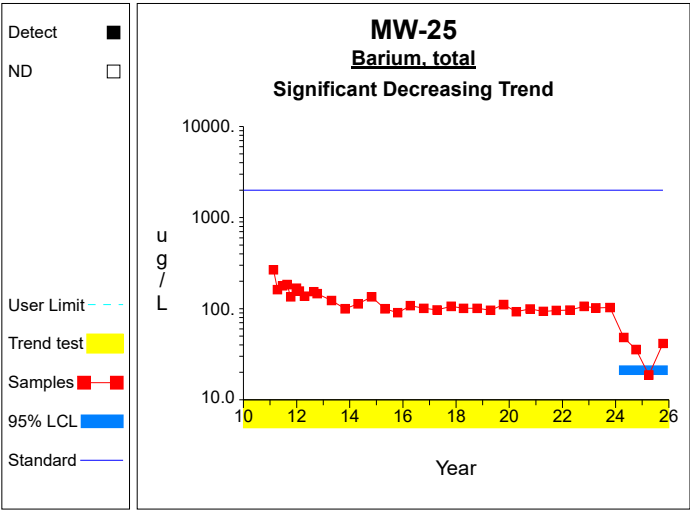


Graph 5

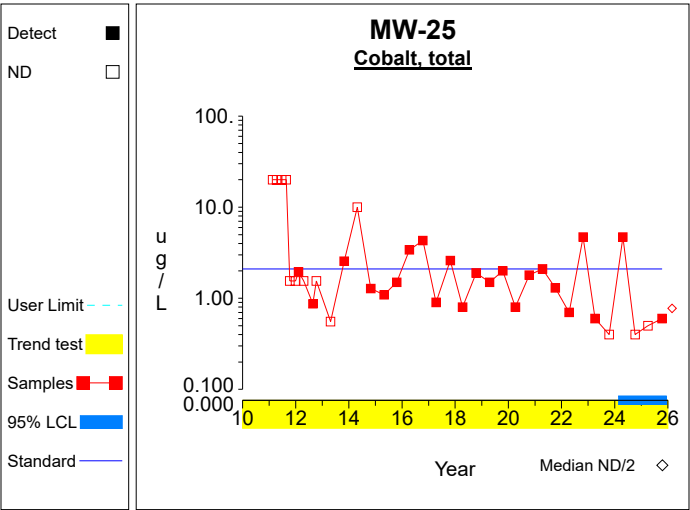
Confidence Limits (Assessment)



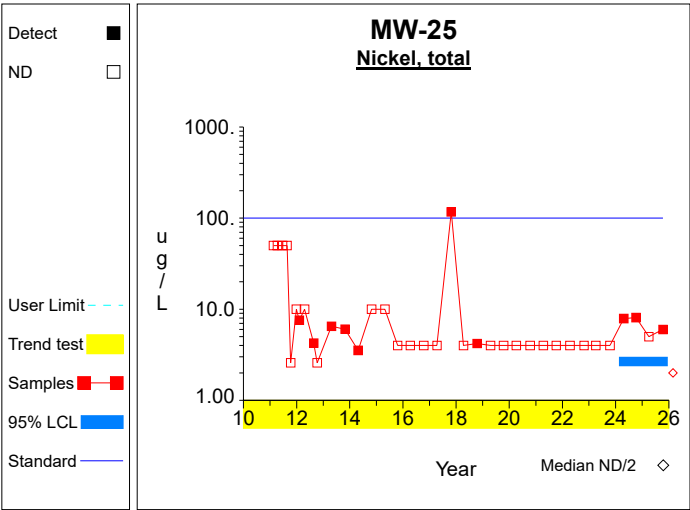
Graph 6



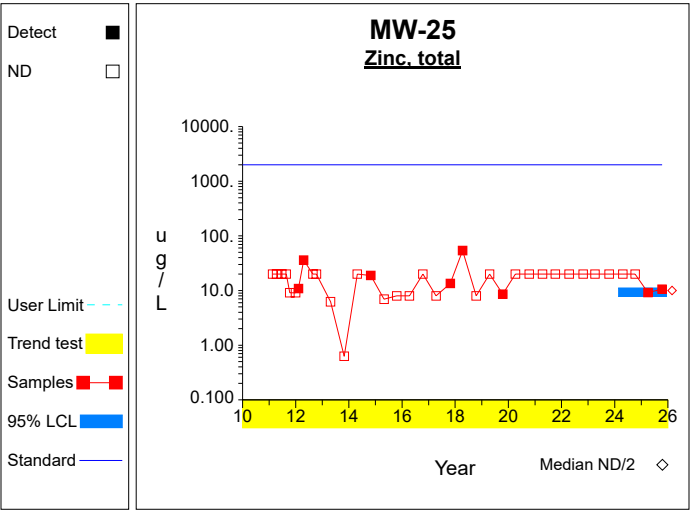
Graph 7



Graph 8

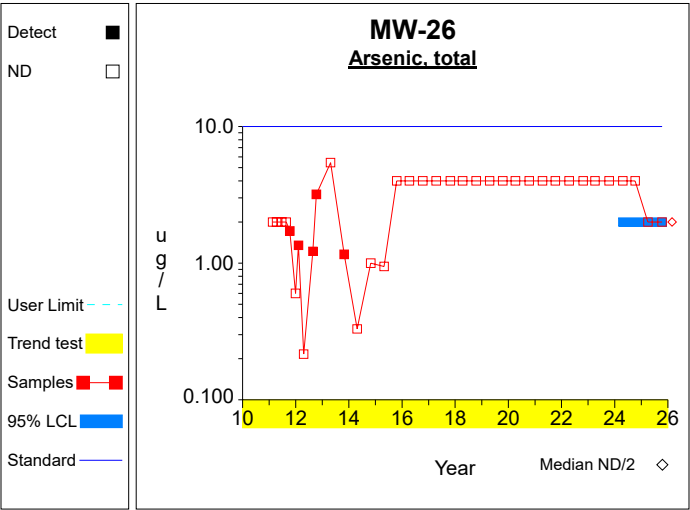


Graph 9

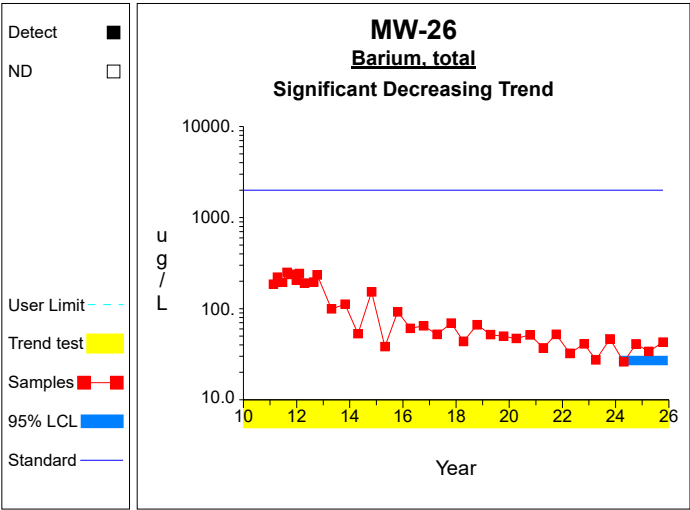


Graph 10

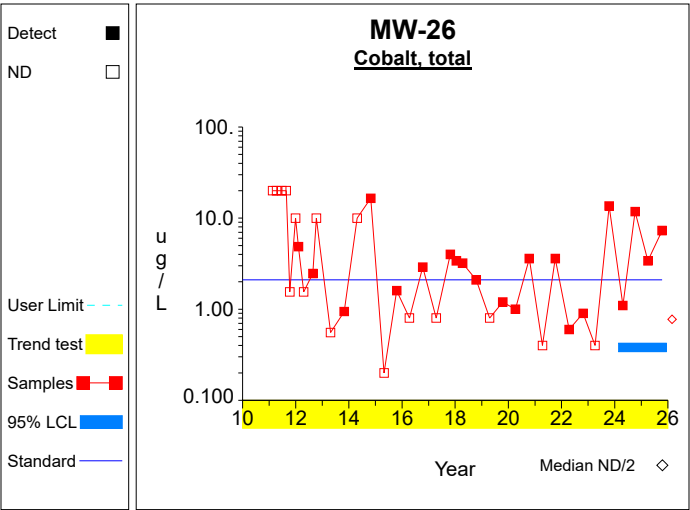
Confidence Limits (Assessment)



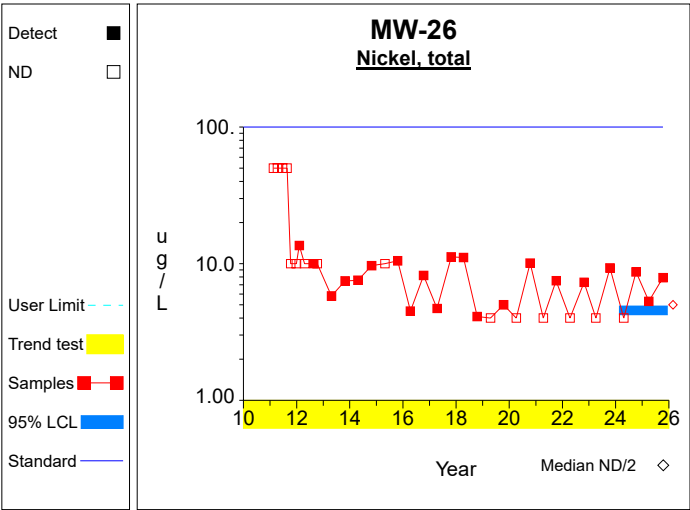
Graph 11



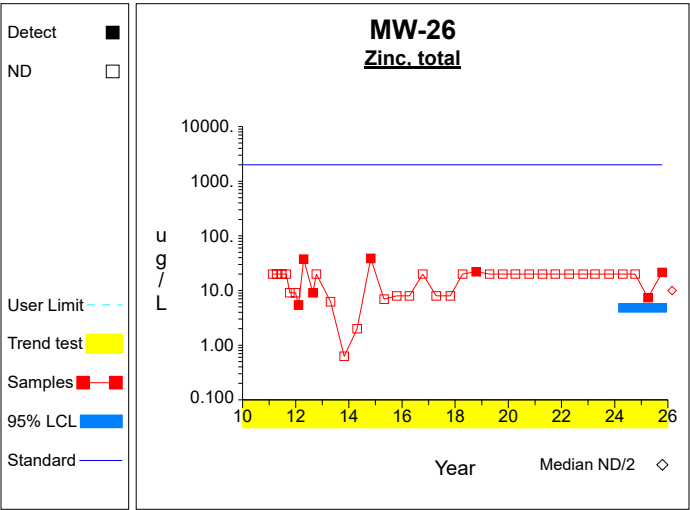
Graph 12



Graph 13

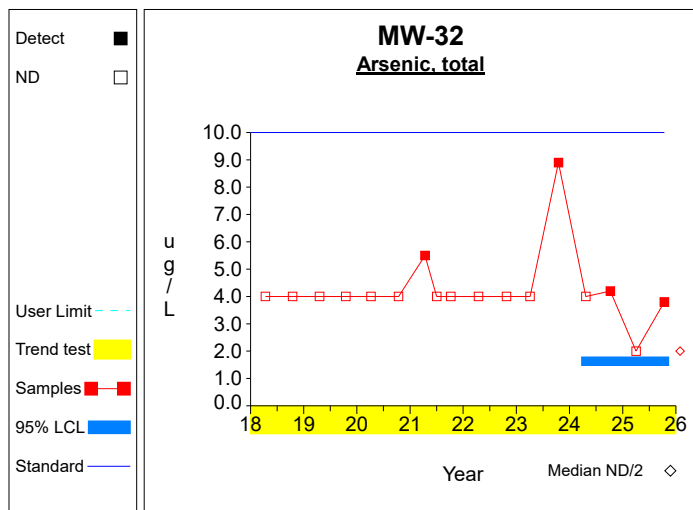


Graph 14

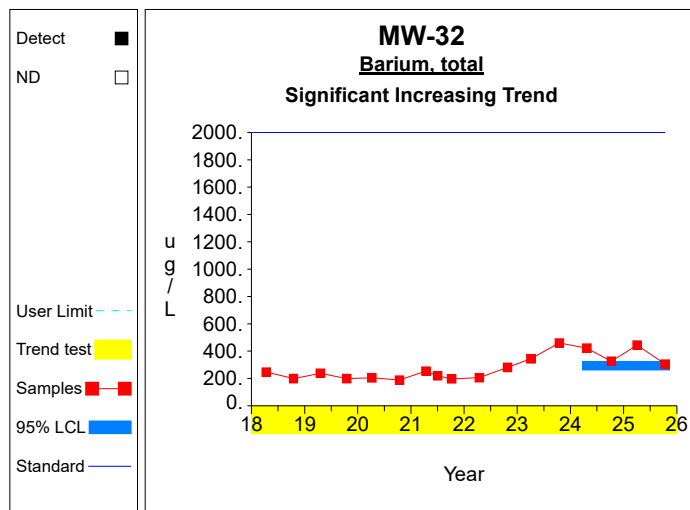


Graph 15

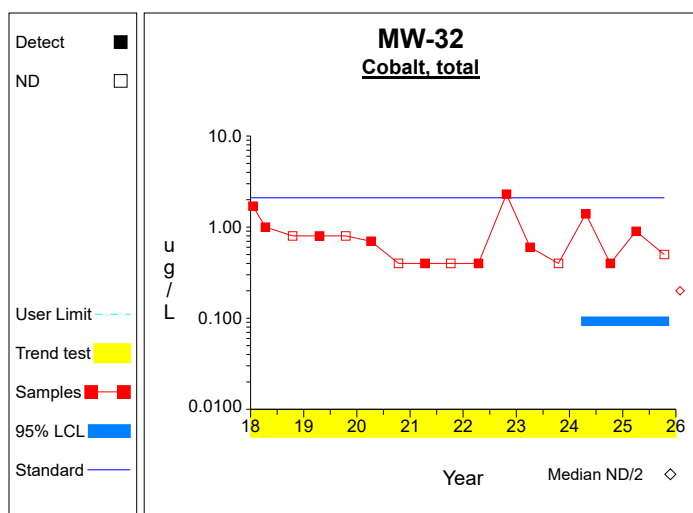
Confidence Limits (Assessment)



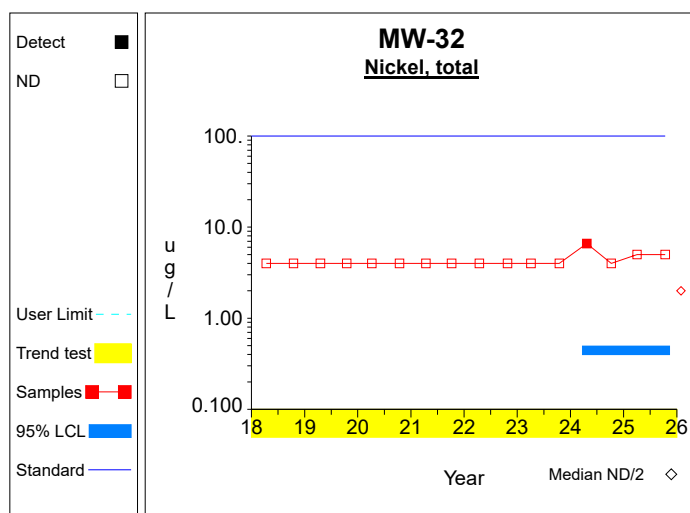
Graph 16



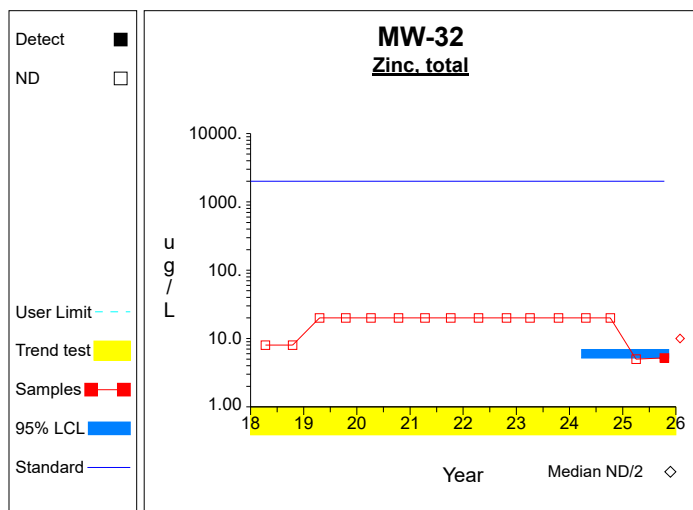
Graph 17



Graph 18

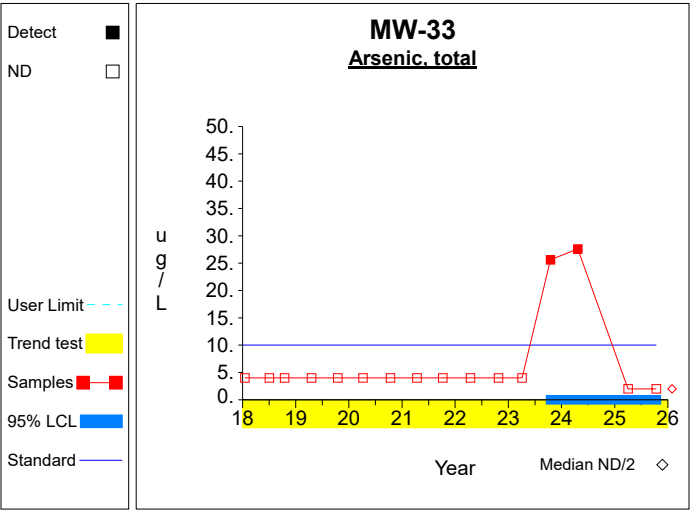


Graph 19

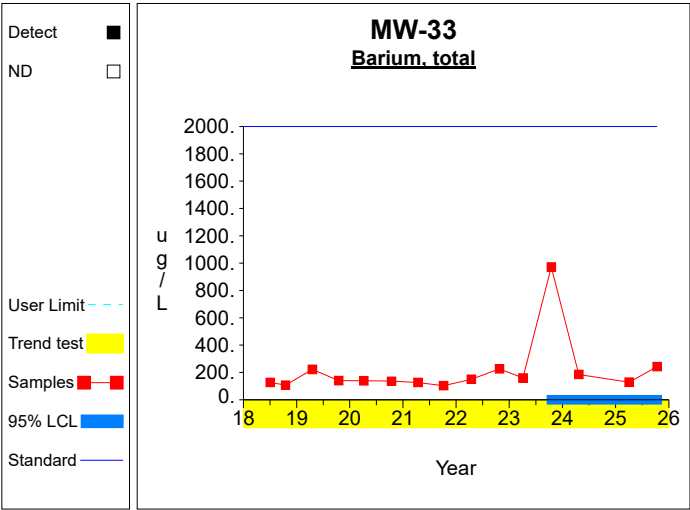


Graph 20

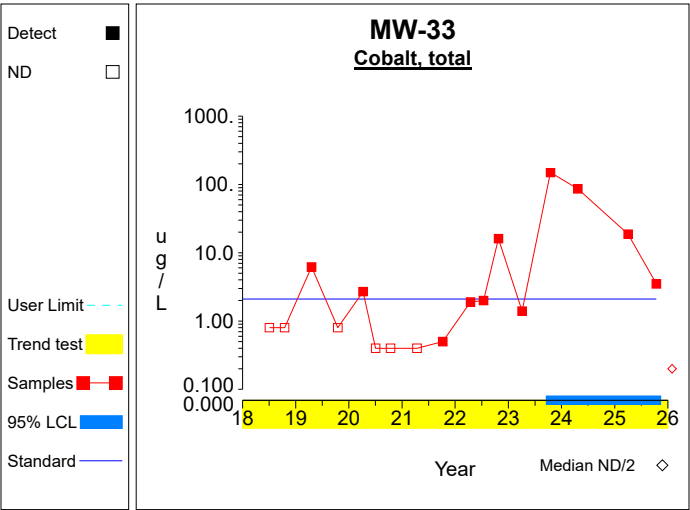
Confidence Limits (Assessment)



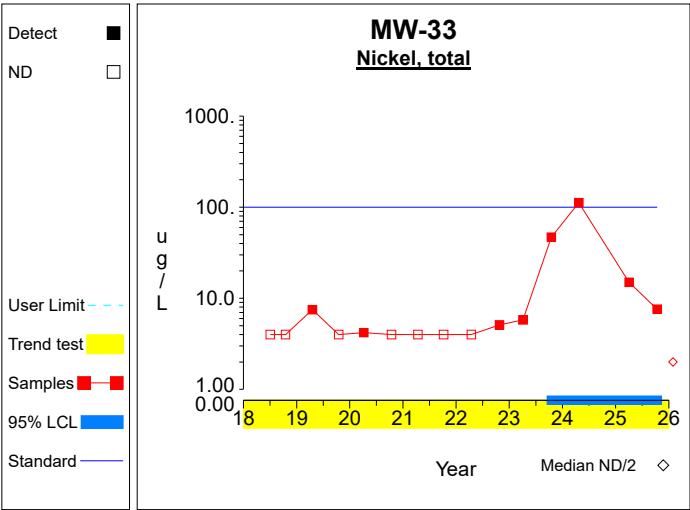
Graph 21



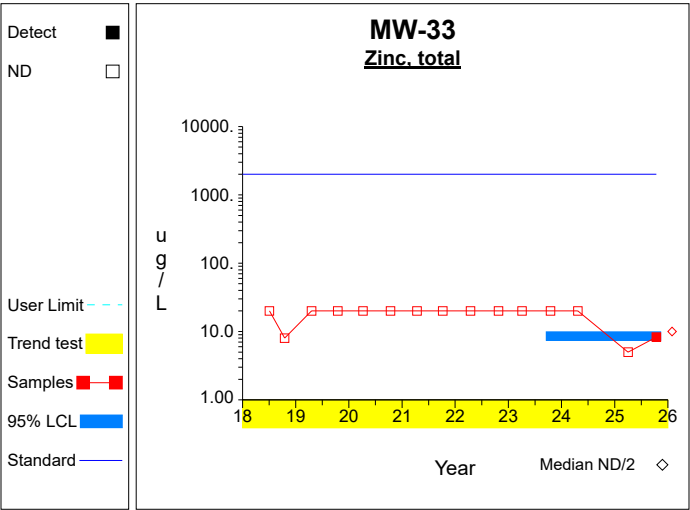
Graph 22



Graph 23

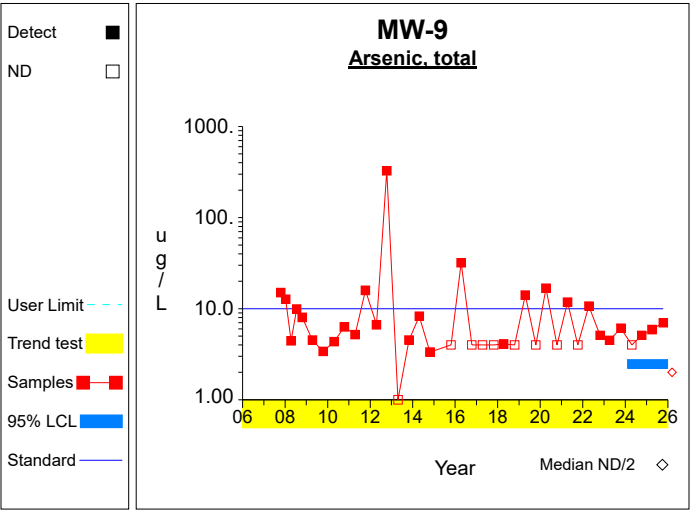


Graph 24

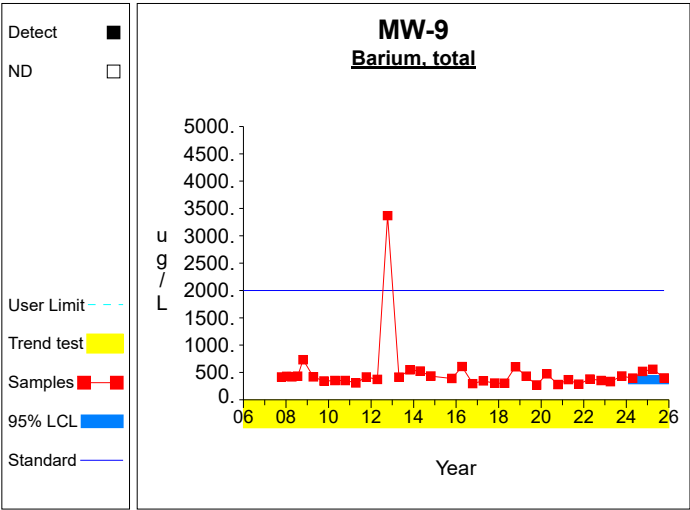


Graph 25

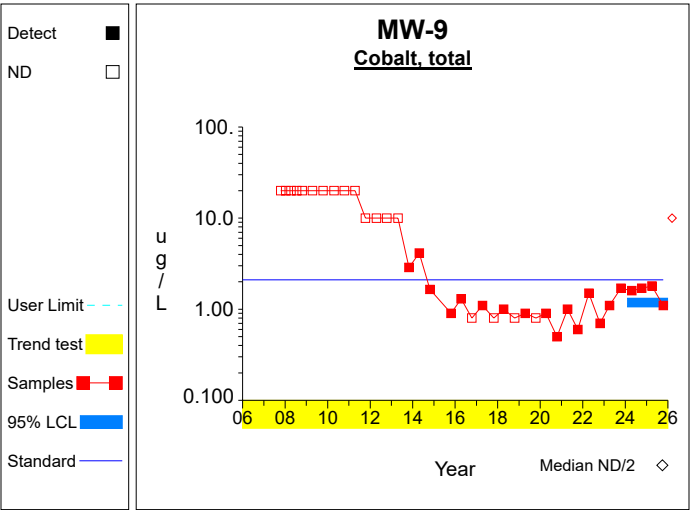
Confidence Limits (Assessment)



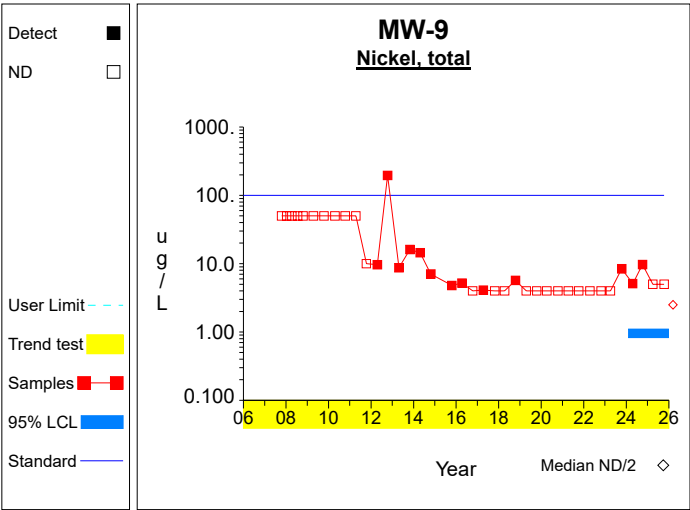
Graph 26



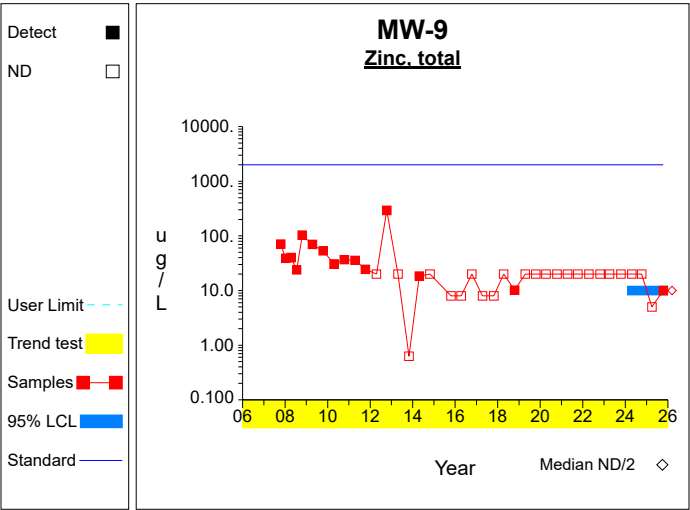
Graph 27



Graph 28



Graph 29



Graph 30

Attachment D

Summary Table of Historical VOC Detections

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Bis(2-ethylhexyl) phthalate	MW-10	4/12/2017		6	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-10	4/11/2018		7	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-10	10/16/2018		34	6	ug/L
Carbon disulfide	MW-12	10/24/2014		2.42	.10	ug/L
Carbon disulfide	MW-14R	2/18/2011		2.25	1.00	ug/L
Carbon disulfide	MW-16	10/24/2014		2.97	.10	ug/L
Carbon disulfide	MW-17	10/24/2014		1.34	.10	ug/L
Carbon disulfide	MW-18	10/21/2014		1.17	1.00	ug/L
1,1-dichloroethane	MW-24	10/21/2015		1.0	1.0	ug/L
1,1-dichloroethane	MW-24	10/13/2020		1.1	1.0	ug/L
1,1-dichloroethane	MW-24	10/06/2021		1.2	1.0	ug/L
1,1-dichloroethane	MW-24	10/25/2022		1.7	1.0	ug/L
1,1-dichloroethane	MW-24	4/01/2025		1.5	1.0	ug/L
1,1-dichloroethane	MW-24	10/13/2025		1.4	1.0	ug/L
Benzene	MW-24	10/29/2014		.718	.500	ug/L
Benzene	MW-24	4/28/2015		1.080	.500	ug/L
Benzene	MW-24	10/21/2015		1.600	1.000	ug/L
Benzene	MW-24	10/11/2016		1.400	1.000	ug/L
Benzene	MW-24	4/11/2018		1.200	1.000	ug/L
Benzene	MW-24	10/13/2020		1.600	1.000	ug/L
Benzene	MW-24	10/06/2021		1.400	1.000	ug/L
Benzene	MW-24	10/25/2022		2.000	1.000	ug/L
Benzene	MW-24	4/01/2025		1.100	1.000	ug/L
Benzene	MW-24	10/13/2025		2.200	1.000	ug/L
Bis(2-ethylhexyl) phthalate	MW-24	4/12/2021		12	6	ug/L
Carbon disulfide	MW-24	10/29/2014		2.24	.10	ug/L
Chloroethane	MW-24	10/25/2022		1.1	1.0	ug/L
Chloroethane	MW-24	10/13/2025		1.2	1.0	ug/L
Vinyl chloride	MW-24	10/13/2020		1.4	1.0	ug/L
Vinyl chloride	MW-24	10/06/2021		1.4	1.0	ug/L
Vinyl chloride	MW-24	10/25/2022		2.2	1.0	ug/L
Vinyl chloride	MW-24	4/01/2025		1.7	1.0	ug/L
Vinyl chloride	MW-24	10/13/2025		2.8	1.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-25	4/12/2017		18	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-25	4/03/2023		15	6	ug/L
Carbon disulfide	MW-25	10/28/2014		1.7	.1	ug/L
Acetone	MW-26	10/16/2023		27.1	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-26	10/26/2017		12	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-26	4/17/2019		7	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-26	4/03/2023		18	6	ug/L
1,1-dichloroethane	MW-27	8/23/2012		2.65	1.00	ug/L
1,1-dichloroethane	MW-27	10/10/2012		9.18	1.00	ug/L
1,1-dichloroethane	MW-27	12/19/2012		7.02	1.00	ug/L
1,1-dichloroethane	MW-27	4/23/2013		2.38	1.00	ug/L
1,1-dichloroethane	MW-27	10/28/2013		1.83	1.00	ug/L
1,1-dichloroethane	MW-27	4/25/2014		2.25	1.00	ug/L
1,1-dichloroethane	MW-27	10/27/2014		1.90	1.00	ug/L
1,1-dichloroethane	MW-27	4/27/2015		9.70	1.00	ug/L
1,1-dichloroethane	MW-27	10/21/2015		1.50	1.00	ug/L
1,1-dichloroethane	MW-27	4/11/2016		5.80	1.00	ug/L
1,1-dichloroethane	MW-27	10/11/2016		5.90	1.00	ug/L
1,1-dichloroethane	MW-27	4/12/2017		3.20	1.00	ug/L
1,1-dichloroethane	MW-27	10/26/2017		2.90	1.00	ug/L
Benzene	MW-27	8/23/2012		1.060	.500	ug/L
Benzene	MW-27	10/10/2012		2.660	.500	ug/L
Benzene	MW-27	12/19/2012		1.950	.500	ug/L
Benzene	MW-27	4/23/2013		1.040	.500	ug/L
Benzene	MW-27	10/28/2013		.763	.500	ug/L
Benzene	MW-27	4/25/2014		1.280	.500	ug/L
Benzene	MW-27	10/27/2014		1.330	.500	ug/L
Benzene	MW-27	4/27/2015		2.920	.500	ug/L
Benzene	MW-27	4/11/2016		1.000	1.000	ug/L
Benzene	MW-27	10/11/2016		1.100	1.000	ug/L
Benzene	MW-27	10/26/2017		1.500	1.000	ug/L
Chloroethane	MW-27	4/27/2015		5.97	1.00	ug/L
Chloroethane	MW-27	4/11/2016		4.50	1.00	ug/L
Chloroethane	MW-27	10/11/2016		4.90	1.00	ug/L
Chloroethane	MW-27	4/12/2017		2.90	1.00	ug/L
Chloroethane	MW-27	10/26/2017		2.50	1.00	ug/L
Cis-1,2-dichloroethylene	MW-27	8/23/2012		1.32	1.00	ug/L
Cis-1,2-dichloroethylene	MW-27	10/10/2012		5.11	1.00	ug/L
Cis-1,2-dichloroethylene	MW-27	12/19/2012		3.53	1.00	ug/L
Cis-1,2-dichloroethylene	MW-27	10/28/2013		1.07	1.00	ug/L
Vinyl chloride	MW-27	10/10/2012		2.46	1.00	ug/L
Vinyl chloride	MW-27	12/19/2012		1.94	1.00	ug/L
Vinyl chloride	MW-27	4/27/2015		1.82	1.00	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Vinyl chloride	MW-27	4/11/2016		1.30	1.00	ug/L
Vinyl chloride	MW-27	10/11/2016		1.40	1.00	ug/L
Vinyl chloride	MW-27	4/12/2017		1.30	1.00	ug/L
1,1-dichloroethane	MW-28	10/24/2014		1.38	1.00	ug/L
1,1-dichloroethane	MW-28	4/27/2015		1.29	1.00	ug/L
1,1-dichloroethane	MW-28	10/11/2016		1.80	1.00	ug/L
Benzene	MW-28	8/23/2012		1.33	.50	ug/L
Benzene	MW-28	10/11/2012		1.29	.50	ug/L
Benzene	MW-28	12/19/2012		1.18	.50	ug/L
Benzene	MW-28	4/23/2013		2.50	.50	ug/L
Benzene	MW-28	10/28/2013		1.06	.50	ug/L
Benzene	MW-28	4/28/2014		2.30	.50	ug/L
Benzene	MW-28	10/24/2014		5.64	.50	ug/L
Benzene	MW-28	4/27/2015		4.56	.50	ug/L
Benzene	MW-28	10/21/2015		2.50	1.00	ug/L
Benzene	MW-28	4/11/2016		7.20	1.00	ug/L
Benzene	MW-28	10/11/2016		12.00	1.00	ug/L
Benzene	MW-28	4/12/2017		7.50	1.00	ug/L
Benzene	MW-28	10/26/2017		9.80	1.00	ug/L
Bis(2-ethylhexyl) phthalate	MW-28	10/21/2015		8	8	ug/L
Carbon disulfide	MW-28	10/24/2014		1.18	.10	ug/L
Chloroethane	MW-28	4/28/2014		6.11	1.00	ug/L
Chloroethane	MW-28	10/24/2014		4.25	1.00	ug/L
Chloroethane	MW-28	10/21/2015		1.40	1.00	ug/L
Chloroethane	MW-28	10/11/2016		1.60	1.00	ug/L
Chloroethane	MW-28	4/12/2017		3.50	1.00	ug/L
Bis(2-ethylhexyl) phthalate	MW-33	10/25/2022		55	6	ug/L
1,1-dichloroethane	MW-5	10/10/2012		1.19	1.00	ug/L
1,1-dichloroethane	MW-5	4/23/2013		1.64	1.00	ug/L
1,1-dichloroethane	MW-5	10/29/2013		1.16	1.00	ug/L
1,1-dichloroethane	MW-5	10/17/2014		1.41	1.00	ug/L
1,1-dichloroethane	MW-5	4/29/2015		1.22	1.00	ug/L
1,1-dichloroethane	MW-5	10/21/2015		1.30	1.00	ug/L
1,1-dichloroethane	MW-5	4/11/2018		1.00	1.00	ug/L
1,1-dichloroethane	MW-5	10/07/2024		2.20	1.00	ug/L
1,1-dichloroethane	MW-5	4/01/2025		9.80	1.00	ug/L
1,1-dichloroethane	MW-5	10/13/2025		4.30	1.00	ug/L
1,4-dichlorobenzene	MW-5	4/11/2018		1.1	1.0	ug/L
1,4-dichlorobenzene	MW-5	10/06/2021		1.0	1.0	ug/L
1,4-dichlorobenzene	MW-5	4/14/2022		1.0	1.0	ug/L
1,4-dichlorobenzene	MW-5	4/01/2025		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-5	10/13/2025		1.1	1.0	ug/L
2-butanone	MW-5	4/23/2013		27.0	1.0	ug/L
2-butanone	MW-5	4/23/2014		43.6	1.0	ug/L
2-butanone	MW-5	4/29/2015		16.8	1.0	ug/L
2-butanone	MW-5	4/11/2018		28.0	5.0	ug/L
2-butanone	MW-5	4/14/2022		28.4	10.0	ug/L
2-butanone	MW-5	4/01/2025		12.6	10.0	ug/L
Acetone	MW-5	4/18/2012		13.6	1.0	ug/L
Acetone	MW-5	4/23/2013		1240.0	1.0	ug/L
Acetone	MW-5	4/23/2014		1530.0	1.0	ug/L
Acetone	MW-5	4/29/2015		103.0	1.0	ug/L
Acetone	MW-5	4/11/2018		1690.0	100.0	ug/L
Acetone	MW-5	4/12/2021		14.8	10.0	ug/L
Acetone	MW-5	4/14/2022		751.0	100.0	ug/L
Acetone	MW-5	4/01/2025		217.0	10.0	ug/L
Benzene	MW-5	4/12/2011		1.42	1.00	ug/L
Benzene	MW-5	5/06/2011		3.47	1.00	ug/L
Benzene	MW-5	6/21/2011		.95	.10	ug/L
Benzene	MW-5	10/10/2011		3.06	1.00	ug/L
Benzene	MW-5	4/18/2012		2.88	1.00	ug/L
Benzene	MW-5	10/10/2012		2.68	1.00	ug/L
Benzene	MW-5	4/23/2013		7.26	1.00	ug/L
Benzene	MW-5	10/29/2013		4.91	1.00	ug/L
Benzene	MW-5	4/23/2014		6.76	1.00	ug/L
Benzene	MW-5	10/17/2014		6.31	1.00	ug/L
Benzene	MW-5	4/29/2015		7.19	1.00	ug/L
Benzene	MW-5	10/21/2015		6.70	1.00	ug/L
Benzene	MW-5	4/11/2016		4.60	1.00	ug/L
Benzene	MW-5	10/11/2016		5.70	1.00	ug/L
Benzene	MW-5	4/12/2017		4.70	1.00	ug/L
Benzene	MW-5	10/26/2017		6.20	1.00	ug/L
Benzene	MW-5	4/11/2018		8.70	1.00	ug/L
Benzene	MW-5	10/16/2018		5.90	1.00	ug/L
Benzene	MW-5	4/17/2019		6.60	1.00	ug/L
Benzene	MW-5	10/15/2019		5.60	1.00	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Benzene	MW-5	4/06/2020		5.60	1.00	ug/L
Benzene	MW-5	10/14/2020		6.30	1.00	ug/L
Benzene	MW-5	4/12/2021		5.70	1.00	ug/L
Benzene	MW-5	10/06/2021		4.50	1.00	ug/L
Benzene	MW-5	4/14/2022		6.00	1.00	ug/L
Benzene	MW-5	10/25/2022		5.40	1.00	ug/L
Benzene	MW-5	4/03/2023		6.50	1.00	ug/L
Benzene	MW-5	10/16/2023		4.50	1.00	ug/L
Benzene	MW-5	4/22/2024		3.70	1.00	ug/L
Benzene	MW-5	10/07/2024		5.20	1.00	ug/L
Benzene	MW-5	4/01/2025		7.20	1.00	ug/L
Benzene	MW-5	10/13/2025		7.00	1.00	ug/L
Bis(2-ethylhexyl) phthalate	MW-5	10/21/2015		8	8	ug/L
Carbon disulfide	MW-5	10/17/2014		1.04	1.00	ug/L
Carbon disulfide	MW-5	4/14/2022		2.40	1.00	ug/L
Chlorobenzene	MW-5	4/23/2013		1.49	1.00	ug/L
Chlorobenzene	MW-5	4/23/2014		1.38	1.00	ug/L
Chlorobenzene	MW-5	10/17/2014		1.22	1.00	ug/L
Chlorobenzene	MW-5	4/29/2015		1.44	1.00	ug/L
Chlorobenzene	MW-5	10/26/2017		1.30	1.00	ug/L
Chlorobenzene	MW-5	4/11/2018		1.80	1.00	ug/L
Chlorobenzene	MW-5	10/15/2019		1.00	1.00	ug/L
Chlorobenzene	MW-5	10/14/2020		1.00	1.00	ug/L
Chlorobenzene	MW-5	10/06/2021		1.10	1.00	ug/L
Chlorobenzene	MW-5	4/14/2022		1.50	1.00	ug/L
Chlorobenzene	MW-5	10/25/2022		1.10	1.00	ug/L
Chlorobenzene	MW-5	4/03/2023		1.10	1.00	ug/L
Chlorobenzene	MW-5	10/16/2023		1.00	1.00	ug/L
Chlorobenzene	MW-5	10/07/2024		1.00	1.00	ug/L
Chlorobenzene	MW-5	4/01/2025		2.00	1.00	ug/L
Chlorobenzene	MW-5	10/13/2025		1.60	1.00	ug/L
Chloroethane	MW-5	4/12/2011		5.40	1.00	ug/L
Chloroethane	MW-5	5/06/2011		5.72	1.00	ug/L
Chloroethane	MW-5	10/10/2011		4.39	1.00	ug/L
Chloroethane	MW-5	4/18/2012		5.42	1.00	ug/L
Chloroethane	MW-5	10/10/2012		5.48	1.00	ug/L
Chloroethane	MW-5	4/23/2013		7.72	1.00	ug/L
Chloroethane	MW-5	10/29/2013		6.04	1.00	ug/L
Chloroethane	MW-5	4/23/2014		10.10	1.00	ug/L
Chloroethane	MW-5	10/17/2014		6.05	1.00	ug/L
Chloroethane	MW-5	4/29/2015		8.30	1.00	ug/L
Chloroethane	MW-5	10/21/2015		6.80	1.00	ug/L
Chloroethane	MW-5	4/11/2016		7.20	1.00	ug/L
Chloroethane	MW-5	10/11/2016		7.20	1.00	ug/L
Chloroethane	MW-5	4/12/2017		6.00	1.00	ug/L
Chloroethane	MW-5	10/26/2017		5.00	1.00	ug/L
Chloroethane	MW-5	4/11/2018		6.30	1.00	ug/L
Chloroethane	MW-5	10/16/2018		2.80	1.00	ug/L
Chloroethane	MW-5	4/17/2019		5.50	1.00	ug/L
Chloroethane	MW-5	10/15/2019		3.50	1.00	ug/L
Chloroethane	MW-5	4/06/2020		4.90	1.00	ug/L
Chloroethane	MW-5	10/14/2020		4.20	1.00	ug/L
Chloroethane	MW-5	4/12/2021		4.20	1.00	ug/L
Chloroethane	MW-5	10/06/2021		3.20	1.00	ug/L
Chloroethane	MW-5	4/14/2022		3.20	1.00	ug/L
Chloroethane	MW-5	10/25/2022		3.80	1.00	ug/L
Chloroethane	MW-5	4/03/2023		5.60	1.00	ug/L
Chloroethane	MW-5	10/16/2023		4.00	1.00	ug/L
Chloroethane	MW-5	4/22/2024		4.10	1.00	ug/L
Chloroethane	MW-5	10/07/2024		6.10	1.00	ug/L
Chloroethane	MW-5	4/01/2025		8.50	1.00	ug/L
Chloroethane	MW-5	10/13/2025		7.90	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/12/2011		1.82	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	5/06/2011		2.96	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	6/21/2011		1.30	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/10/2011		1.60	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/18/2012		2.65	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/10/2012		1.76	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/23/2013		2.07	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/29/2013		1.75	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/23/2014		2.16	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/17/2014		2.06	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/29/2015		2.02	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/21/2015		1.90	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/11/2016		1.60	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/11/2016		1.60	1.00	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Cis-1,2-dichloroethylene	MW-5	4/12/2017		1.60	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/26/2017		1.50	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/11/2018		2.40	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/17/2019		1.30	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/14/2020		1.20	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/06/2021		1.60	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/14/2022		1.50	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/25/2022		1.80	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/03/2023		1.80	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/16/2023		1.60	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/22/2024		1.10	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/07/2024		1.10	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	4/01/2025		2.10	1.00	ug/L
Cis-1,2-dichloroethylene	MW-5	10/13/2025		2.00	1.00	ug/L
Ethylbenzene	MW-5	4/23/2013		15.20	1.00	ug/L
Ethylbenzene	MW-5	4/23/2014		13.30	1.00	ug/L
Ethylbenzene	MW-5	10/17/2014		2.31	1.00	ug/L
Ethylbenzene	MW-5	4/29/2015		15.40	1.00	ug/L
Ethylbenzene	MW-5	10/26/2017		1.20	1.00	ug/L
Ethylbenzene	MW-5	4/11/2018		23.00	1.00	ug/L
Ethylbenzene	MW-5	4/17/2019		2.90	1.00	ug/L
Ethylbenzene	MW-5	4/12/2021		5.10	1.00	ug/L
Ethylbenzene	MW-5	4/14/2022		11.90	1.00	ug/L
Ethylbenzene	MW-5	10/25/2022		2.70	1.00	ug/L
Ethylbenzene	MW-5	4/01/2025		6.70	1.00	ug/L
Ethylbenzene	MW-5	10/13/2025		2.60	1.00	ug/L
Methane	MW-5	7/23/2019		5060	704	ug/L
Methane	MW-5	10/07/2024		1520	25	ug/L
Methane	MW-5	10/13/2025		3810	125	ug/L
Toluene	MW-5	4/23/2013		1.9	1.0	ug/L
Toluene	MW-5	10/25/2022		6.5	1.0	ug/L
Toluene	MW-5	10/07/2024		2.3	1.0	ug/L
Toluene	MW-5	10/13/2025		2.2	1.0	ug/L
Vinyl chloride	MW-5	4/12/2011		2.74	1.00	ug/L
Vinyl chloride	MW-5	5/06/2011		1.90	1.00	ug/L
Vinyl chloride	MW-5	10/10/2011		1.19	1.00	ug/L
Vinyl chloride	MW-5	4/18/2012		1.60	1.00	ug/L
Vinyl chloride	MW-5	10/10/2012		1.41	1.00	ug/L
Vinyl chloride	MW-5	4/12/2017		1.10	1.00	ug/L
Vinyl chloride	MW-5	4/03/2023		1.20	1.00	ug/L
Vinyl chloride	MW-5	4/01/2025		1.30	1.00	ug/L
Xylenes, total	MW-5	4/18/2012		.98	.10	ug/L
Xylenes, total	MW-5	4/23/2013		19.30	1.00	ug/L
Xylenes, total	MW-5	4/23/2014		11.10	1.00	ug/L
Xylenes, total	MW-5	4/29/2015		10.40	1.00	ug/L
Xylenes, total	MW-5	4/11/2018		23.50	2.00	ug/L
Xylenes, total	MW-5	4/12/2021		2.80	2.00	ug/L
Xylenes, total	MW-5	4/14/2022		6.70	2.00	ug/L
Xylenes, total	MW-5	4/01/2025		2.20	2.00	ug/L
1,4-dichlorobenzene	MW-6	4/18/2019		2.6	1.0	ug/L
Tetrachloroethylene	MW-6	10/31/2013		3.76	1.00	ug/L
Carbon disulfide	MW-7	10/17/2007		8.65	.10	ug/L
Carbon disulfide	MW-7	10/24/2014		1.54	.10	ug/L
Carbon disulfide	MW-8	4/16/2013		1.58	1.00	ug/L
Carbon disulfide	MW-8	10/27/2014		1.03	1.00	ug/L
1,1-dichloroethane	MW-9	10/11/2012		3.32	1.00	ug/L
1,1-dichloroethane	MW-9	10/29/2013		2.21	1.00	ug/L
Acetone	MW-9	10/21/2008		16.3	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-9	4/11/2018		6	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-9	10/16/2019		12	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-9	4/12/2021		6	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-9	10/25/2022		6	6	ug/L
Carbon disulfide	MW-9	10/11/2012		.43	.10	ug/L
Carbon disulfide	MW-9	10/13/2025		1.20	1.00	ug/L
Cis-1,2-dichloroethylene	MW-9	10/11/2012		1.23	1.00	ug/L
Hexachlorobenzene	MW-9	4/11/2018		.12	.05	ug/L
Vinyl chloride	MW-9	10/11/2012		1.1	1.0	ug/L

Detections are shown for the constituents and sample points selected for the analysis
The Limit column refers to the laboratory reporting limit

Attachment E

Assessment Statistics for Detected VOCs

Table 1

**Confidence Intervals for Comparing the Mean of the Last
4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
1,1-dichloroethane	ug/L	MW-24	4	0.975	0.550	1.176	0.328	1.622	140.000	
Benzene	ug/L	MW-24	4	1.075	0.802	1.176	0.132	2.018	5.000	
Chloroethane	ug/L	MW-24	4	0.675	0.350	1.176	0.263	1.087	2800.000	
Vinyl chloride	ug/L	MW-24	4	1.375	1.106	1.176	0.074	2.676	2.000	

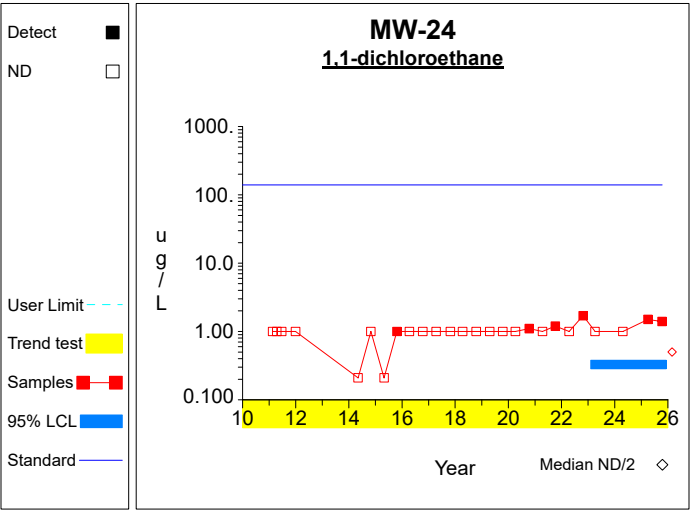
* - Insufficient Data

** - Significant Exceedance

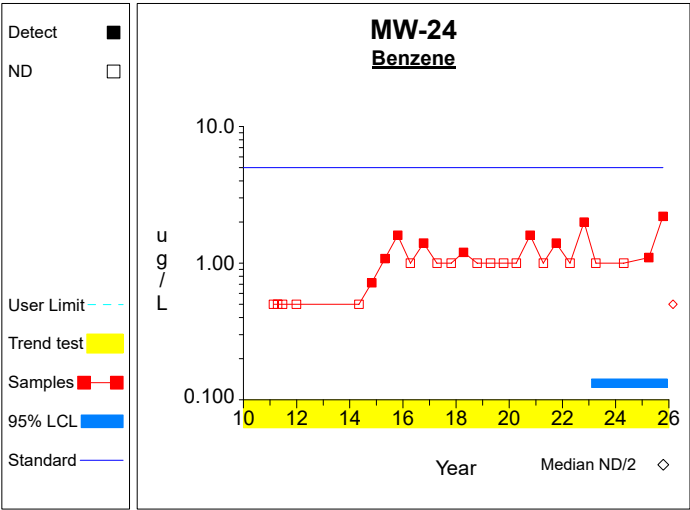
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

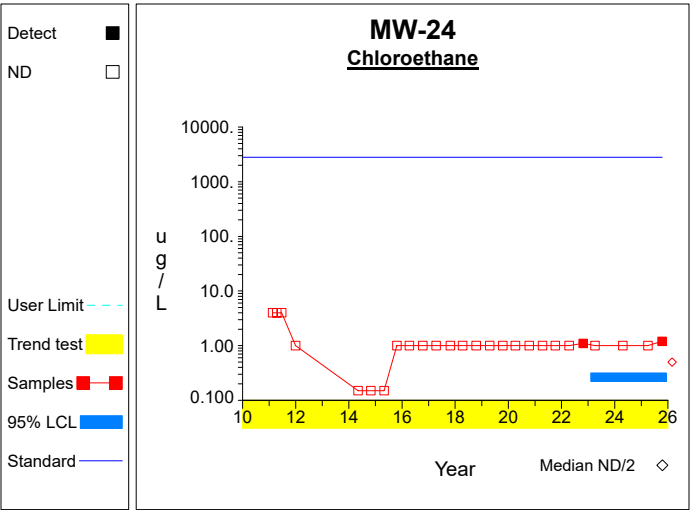
Confidence Limits (Assessment)



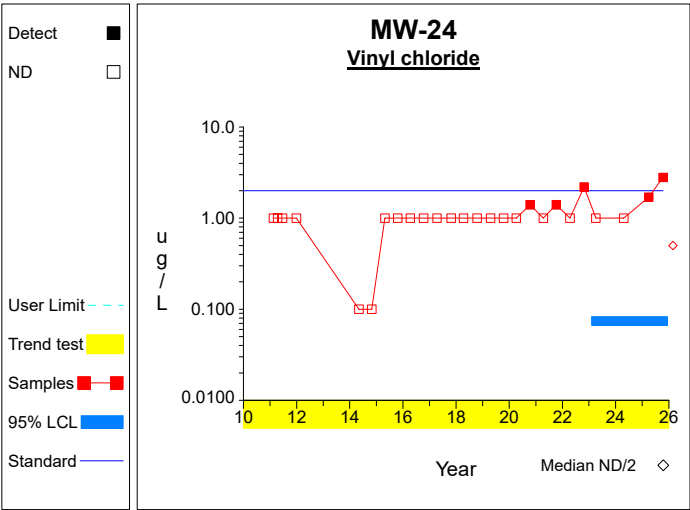
Graph 1



Graph 2



Graph 3



Graph 4

Attachment F

Assessment Statistics for Detected Trace Metals and VOCs at MW-5 and MW-7

Table 1

**Confidence Intervals for Comparing the Mean of the Last
4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
1,1-dichloroethane	ug/L	MW-5	4	4.200	4.044	1.176	0.000	8.957	140.000	inc
1,4-dichlorobenzene	ug/L	MW-5	4	0.825	0.377	1.176	0.381	1.269	75.000	
Arsenic, total	ug/L	MW-5	4	11.800	2.174	1.176	9.243	14.357	10.000	
Barium, total	ug/L	MW-5	4	762.250	445.602	1.176	238.093	1286.407	2000.000	
Benzene	ug/L	MW-5	4	5.775	1.650	1.176	3.834	7.716	5.000	
Chlorobenzene	ug/L	MW-5	4	1.275	0.660	1.176	0.498	2.052	100.000	
Chloroethane	ug/L	MW-5	4	6.650	1.982	1.176	4.318	8.982	2800.000	
Cis-1,2-dichloroethylene	ug/L	MW-5	4	1.575	0.550	1.176	0.928	2.222	70.000	
Cobalt, total	ug/L	MW-5	4	0.850	0.370	1.176	0.415	1.285	2.100	
Ethylbenzene	ug/L	MW-5	4	2.575	2.923	1.176	0.000	6.013	700.000	
Toluene	ug/L	MW-5	4	1.375	1.011	1.176	0.186	2.564	1000.000	
Vinyl chloride	ug/L	MW-5	4	0.700	0.400	1.176	0.229	1.171	2.000	
Xylenes, total	ug/L	MW-5	4	1.300	0.600	1.176	0.594	2.006	10000.000	
Zinc, total	ug/L	MW-5	4	8.750	1.700	1.176	6.750	10.750	2000.000	
1,1-dichloroethane	ug/L	MW-7	4	0.500	0.000	1.176	0.500	0.500	140.000	dec
1,4-dichlorobenzene	ug/L	MW-7	4	0.500	0.000	1.176	0.500	0.500	75.000	
Arsenic, total	ug/L	MW-7	4	2.000	0.000	1.176	2.000	2.000	10.000	
Barium, total	ug/L	MW-7	4	44.525	10.153	1.176	32.582	56.468	2000.000	
Benzene	ug/L	MW-7	4	0.500	0.000	1.176	0.500	0.500	5.000	
Chlorobenzene	ug/L	MW-7	4	0.500	0.000	1.176	0.500	0.500	100.000	
Chloroethane	ug/L	MW-7	4	0.500	0.000	1.176	0.500	0.500	2800.000	
Cis-1,2-dichloroethylene	ug/L	MW-7	4	0.500	0.000	1.176	0.500	0.500	70.000	
Cobalt, total	ug/L	MW-7	4	0.550	0.412	1.176	0.065	1.035	2.100	
Ethylbenzene	ug/L	MW-7	4	0.500	0.000	1.176	0.500	0.500	700.000	
Toluene	ug/L	MW-7	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Vinyl chloride	ug/L	MW-7	4	0.500	0.000	1.176	0.500	0.500	2.000	
Xylenes, total	ug/L	MW-7	4	1.000	0.000	1.176	1.000	1.000	10000.000	
Zinc, total	ug/L	MW-7	4	21.000	13.689	1.176	4.898	37.102	2000.000	dec

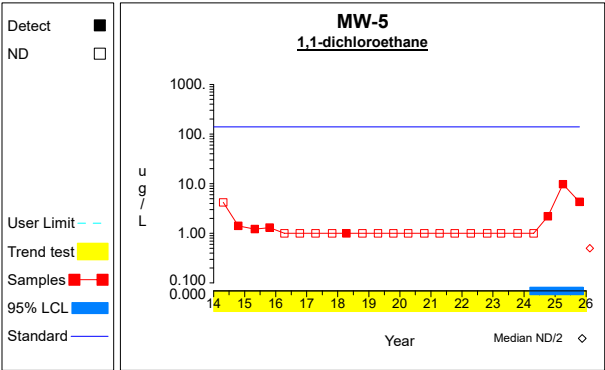
* - Insufficient Data

** - Significant Exceedance

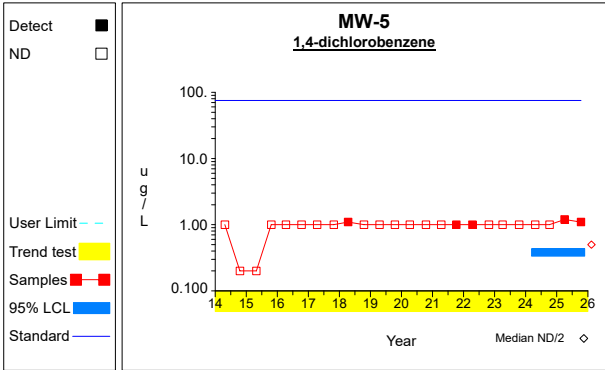
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

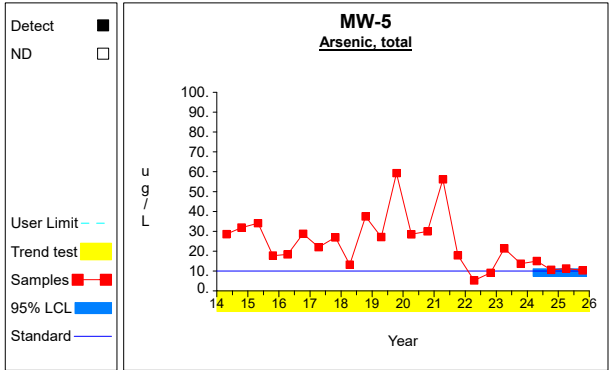
Confidence Limits (Assessment)



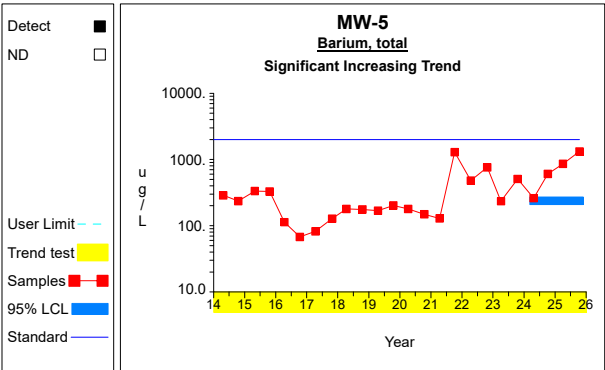
Graph 1



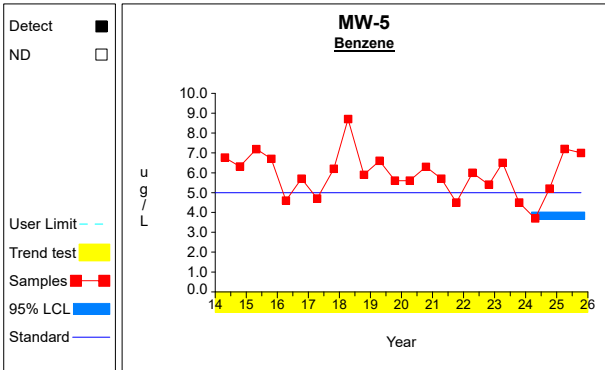
Graph 2



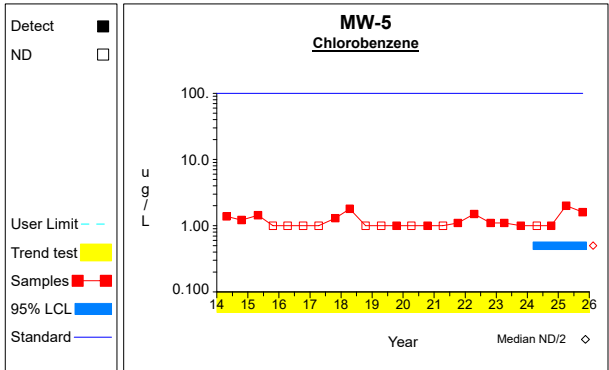
Graph 3



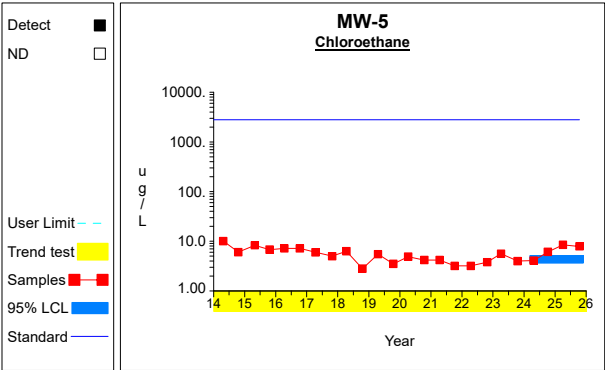
Graph 4



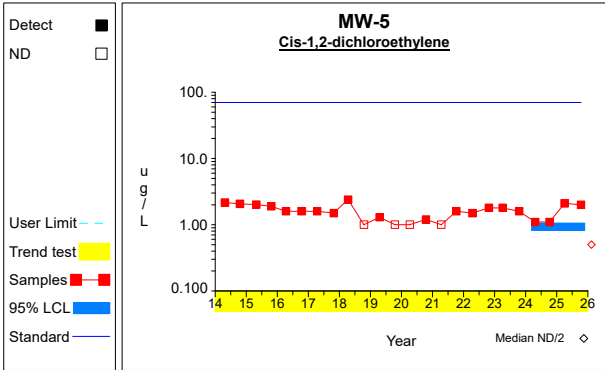
Graph 5



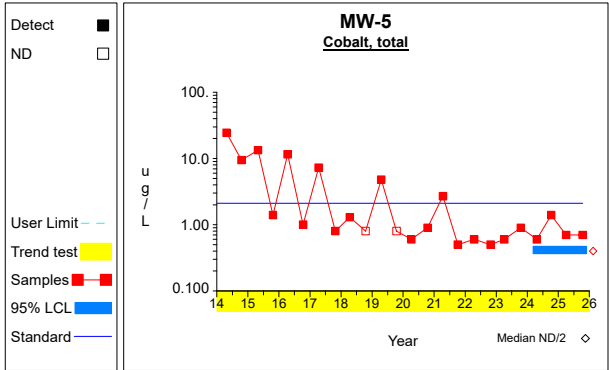
Graph 6



Graph 7

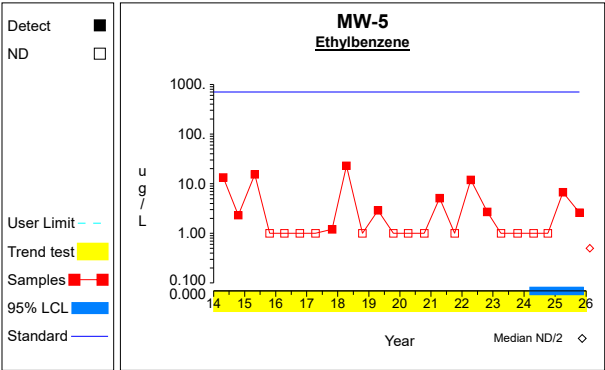


Graph 8

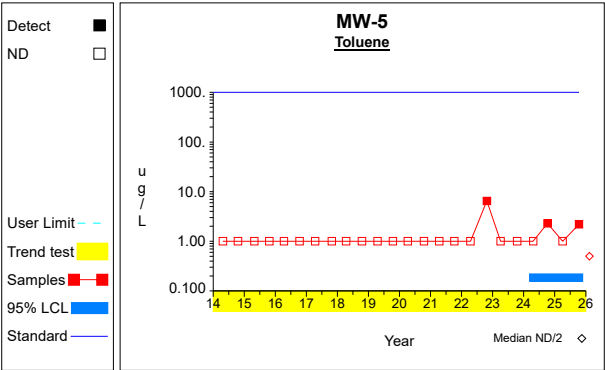


Graph 9

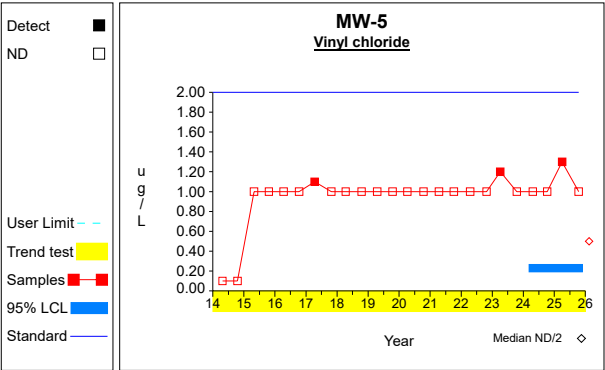
Confidence Limits (Assessment)



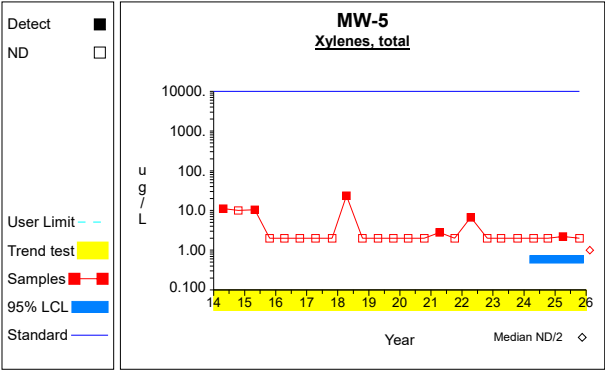
Graph 10



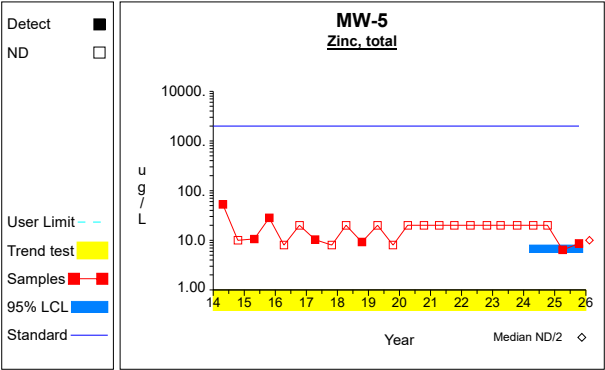
Graph 11



Graph 12

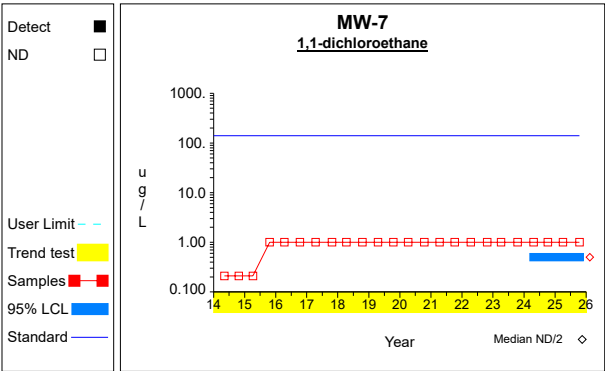


Graph 13

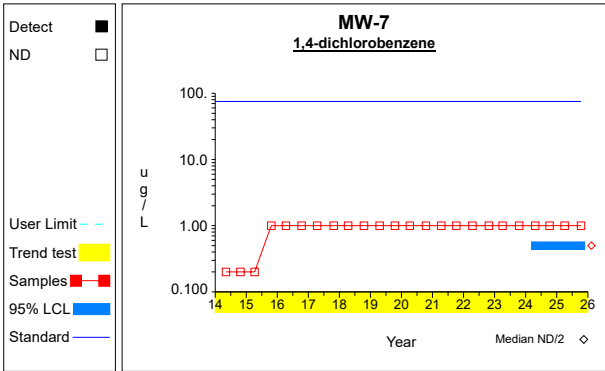


Graph 14

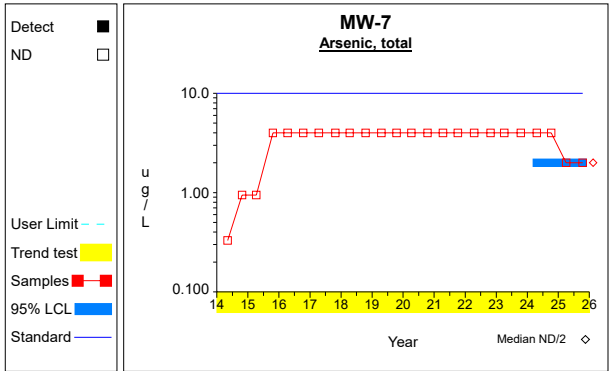
Confidence Limits (Assessment)



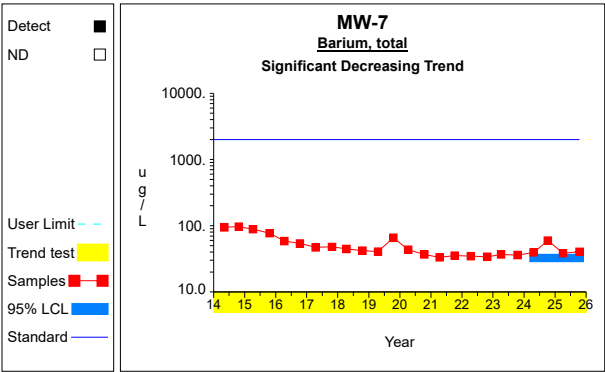
Graph 15



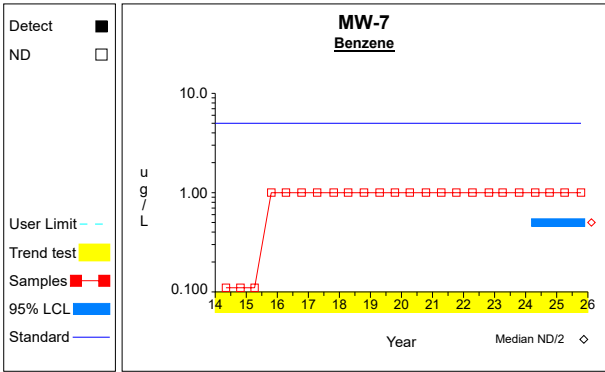
Graph 16



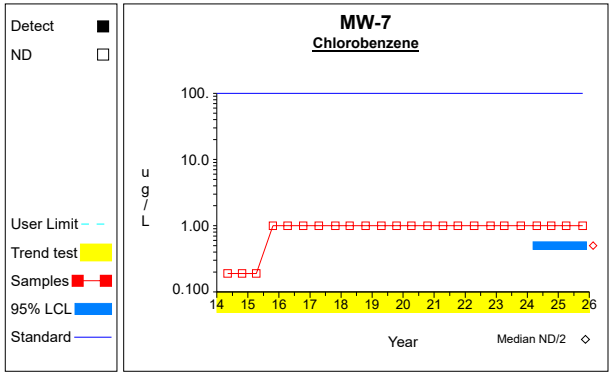
Graph 17



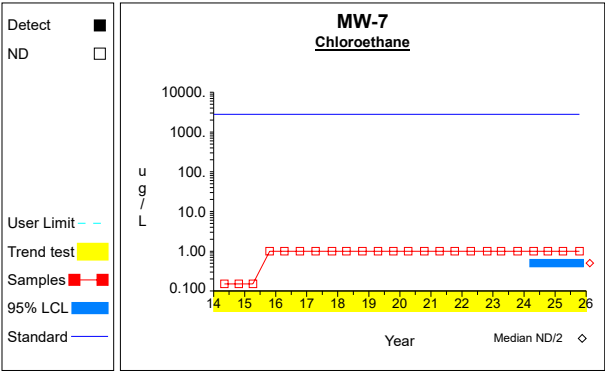
Graph 18



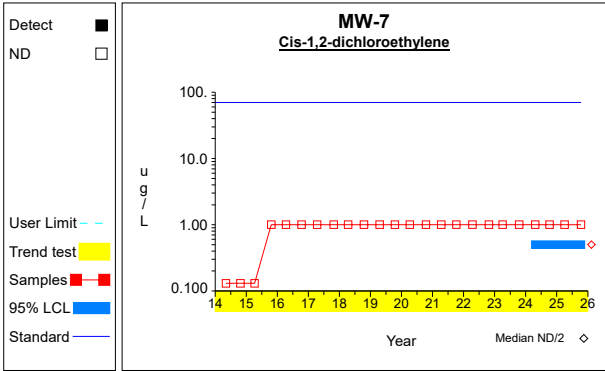
Graph 19



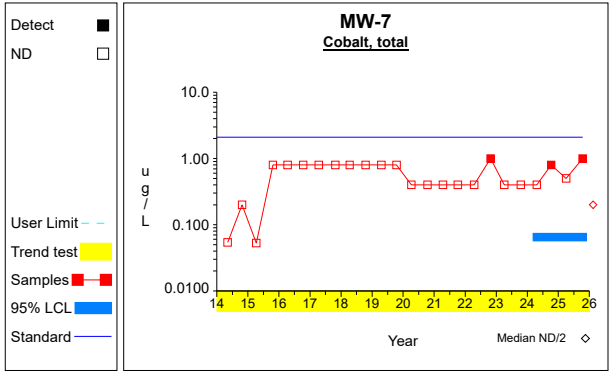
Graph 20



Graph 21

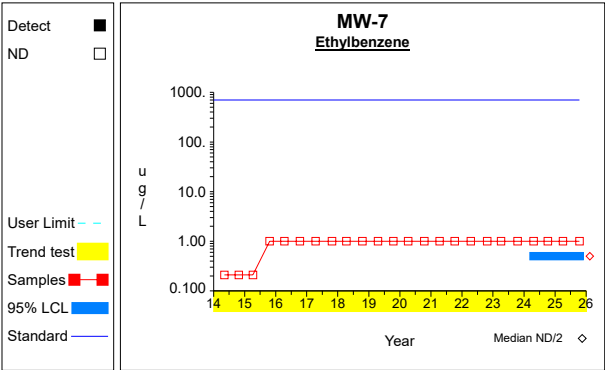


Graph 22

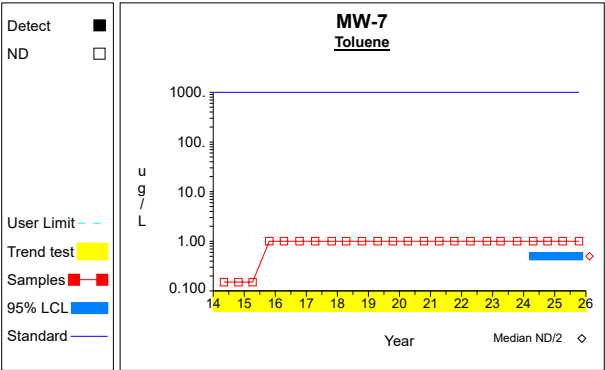


Graph 23

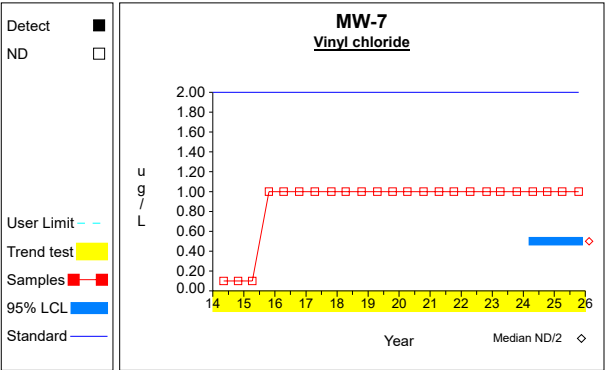
Confidence Limits (Assessment)



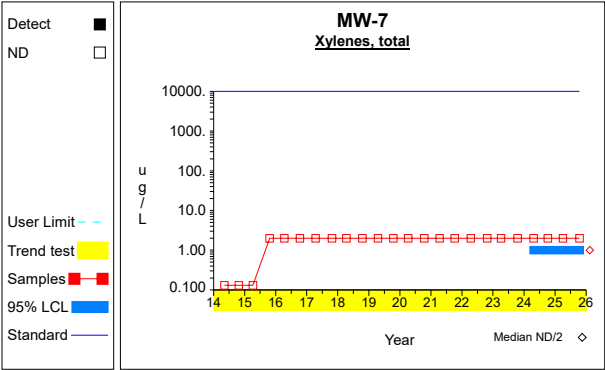
Graph 24



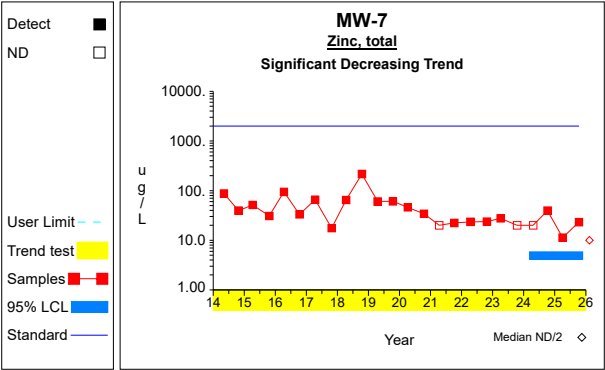
Graph 25



Graph 26



Graph 27



Graph 28

Appendix C

Laboratory Reports for Reporting Period *With Chain of Custody*



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1ID0654

Project Description

6040

For:

Todd Whipple

HLW Engineering

204 West Broad St

Story City, IA 50248

Heather Murphy

Customer Relationship Specialist

Friday, June 20, 2025

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac Laboratories, Inc., Newton. If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed above.

I certify that all test results meet all of the requirements of the accrediting authority listed within this report. Analytical results are reported on a 'as received' basis unless specified otherwise. Analytical results for solids with units ending in (dry) are reported on a dry weight basis. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1ID0654

HLW Engineering

Todd Whipple
204 West Broad St
Story City, IA 50248

Project Name: 6040

Project / PO Number: N/A
Received: 04/03/2025
Reported: 06/20/2025

Sample Summary Report

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
MW-12	1ID0654-01	Aqueous	GRAB		04/01/25 10:25	04/03/25 10:18
MW-21	1ID0654-02	Aqueous	GRAB		04/01/25 11:07	04/03/25 10:18
MW-17	1ID0654-03	Aqueous	GRAB		04/01/25 11:20	04/03/25 10:18
MW-5	1ID0654-04	Aqueous	GRAB		04/01/25 10:43	04/03/25 10:18
MW-7	1ID0654-05	Aqueous	GRAB		04/01/25 08:53	04/03/25 10:18
MW-9	1ID0654-06	Aqueous	GRAB		04/01/25 07:41	04/03/25 10:18
MW-16	1ID0654-07	Aqueous	GRAB		04/01/25 09:20	04/03/25 10:18
MW-24	1ID0654-08	Aqueous	GRAB		04/01/25 08:41	04/03/25 10:18
MW-25	1ID0654-09	Aqueous	GRAB		04/01/25 09:07	04/03/25 10:18
MW-26	1ID0654-10	Aqueous	GRAB		04/01/25 09:33	04/03/25 10:18
MW-32	1ID0654-11	Aqueous	GRAB		04/01/25 08:15	04/03/25 10:18
MW-33	1ID0654-12	Aqueous	GRAB		04/01/25 08:03	04/03/25 10:18
ACM Tile 1	1ID0654-13	Aqueous	GRAB		04/01/25 09:53	04/03/25 10:18
PECS-1	1ID0654-14	Aqueous	GRAB		04/01/25 10:03	04/03/25 10:18
Duplicate	1ID0654-15	Aqueous	GRAB		04/01/25 00:00	04/03/25 10:18



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1ID0654

Analytical Testing Parameters

Client Sample ID:	MW-12	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/01/2025 10:25
Lab Sample ID:	1ID0654-01		

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Vinyl Chloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 1811	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Benzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF

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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: MW-12
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-01

Collected By: Whipple, Todd
Collection Date: 04/01/2025 10:25

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
Bromoform		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,2,3-Trichloropropane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1606	RAF
Surrogate: Dibromofluoromethane	97.3	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 1811	CSM
Surrogate: Dibromofluoromethane	109	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 1606	RAF
Surrogate: Dibromofluoromethane	109	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 1606	RAF
Surrogate: 1,2-Dichloroethane-d4	106	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 1606	RAF
Surrogate: 1,2-Dichloroethane-d4	106	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 1606	RAF
Surrogate: 1,2-Dichloroethane-d4	91.3	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 1811	CSM
Surrogate: Toluene-d8	101	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 1811	CSM
Surrogate: Toluene-d8	101	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 1606	RAF
Surrogate: Toluene-d8	101	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 1606	RAF
Surrogate: 4-Bromofluorobenzene	92.4	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 1811	CSM
Surrogate: 4-Bromofluorobenzene	99.9	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 1606	RAF
Surrogate: 4-Bromofluorobenzene	99.9	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 1606	RAF

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1627	RVV
Arsenic, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1627	RVV
Barium, total	0.116		0.0010	mg/L		04/17/25 1601	06/18/25 1627	RVV
Beryllium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1627	RVV
Cadmium, total		<0.0002	0.0002	mg/L		04/17/25 1601	06/18/25 1627	RVV
Chromium, total	0.0011		0.0010	mg/L		04/17/25 1601	06/18/25 1627	RVV
Cobalt, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1627	RVV
Copper, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1627	RVV
Lead, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1627	RVV
Nickel, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1627	RVV
Selenium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1627	RVV
Silver, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1627	RVV
Thallium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1627	RVV
Vanadium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1627	RVV
Zinc, total	0.0054		0.0050	mg/L		04/17/25 1601	06/18/25 1627	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: MW-21
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-02

Collected By: Whipple, Todd
Collection Date: 04/01/2025 11:07

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Vinyl Chloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 1833	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Benzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: MW-21
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-02

Collected By: Whipple, Todd
Collection Date: 04/01/2025 11:07

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1628	RAF
Surrogate: Dibromofluoromethane	101	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 1833	CSM
Surrogate: Dibromofluoromethane	109	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 1628	RAF
Surrogate: Dibromofluoromethane	109	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 1628	RAF
Surrogate: 1,2-Dichloroethane-d4	106	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 1628	RAF
Surrogate: 1,2-Dichloroethane-d4	90.6	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 1833	CSM
Surrogate: 1,2-Dichloroethane-d4	106	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 1628	RAF
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 1628	RAF
Surrogate: Toluene-d8	98.6	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 1833	CSM
Surrogate: Toluene-d8	100	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 1628	RAF
Surrogate: 4-Bromofluorobenzene	99.2	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 1628	RAF
Surrogate: 4-Bromofluorobenzene	91.9	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 1833	CSM
Surrogate: 4-Bromofluorobenzene	99.2	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 1628	RAF

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1630	RVV
Arsenic, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1630	RVV
Barium, total	0.0445		0.0010	mg/L		04/17/25 1601	06/18/25 1630	RVV
Beryllium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1630	RVV
Cadmium, total		<0.0002	0.0002	mg/L		04/17/25 1601	06/18/25 1630	RVV
Chromium, total	0.0010		0.0010	mg/L		04/17/25 1601	06/18/25 1630	RVV
Cobalt, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1630	RVV
Copper, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1630	RVV
Lead, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1630	RVV
Nickel, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1630	RVV
Selenium, total	0.0021		0.0020	mg/L		04/17/25 1601	06/18/25 1630	RVV
Silver, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1630	RVV
Thallium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1630	RVV
Vanadium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1630	RVV
Zinc, total	0.0061		0.0050	mg/L		04/17/25 1601	06/18/25 1630	RVV

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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: MW-17
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-03

Collected By: Whipple, Todd
Collection Date: 04/01/2025 11:20

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Vinyl Chloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 1856	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Benzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: MW-17
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-03

Collected By: Whipple, Todd
Collection Date: 04/01/2025 11:20

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1651	RAF
Surrogate: Dibromofluoromethane	108	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 1651	RAF
Surrogate: Dibromofluoromethane	102	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 1856	CSM
Surrogate: Dibromofluoromethane	108	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 1651	RAF
Surrogate: 1,2-Dichloroethane-d4	105	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 1651	RAF
Surrogate: 1,2-Dichloroethane-d4	105	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 1651	RAF
Surrogate: 1,2-Dichloroethane-d4	91.3	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 1856	CSM
Surrogate: Toluene-d8	99.8	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 1651	RAF
Surrogate: Toluene-d8	99.8	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 1651	RAF
Surrogate: Toluene-d8	96.1	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 1856	CSM
Surrogate: 4-Bromofluorobenzene	98.9	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 1651	RAF
Surrogate: 4-Bromofluorobenzene	98.9	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 1651	RAF
Surrogate: 4-Bromofluorobenzene	91.6	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 1856	CSM

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1633	RVV
Arsenic, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1633	RVV
Barium, total	0.110		0.0010	mg/L		04/17/25 1601	06/18/25 1633	RVV
Beryllium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1633	RVV
Cadmium, total		<0.0002	0.0002	mg/L		04/17/25 1601	06/18/25 1633	RVV
Chromium, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1633	RVV
Cobalt, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1633	RVV
Copper, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1633	RVV
Lead, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1633	RVV
Nickel, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1633	RVV
Selenium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1633	RVV
Silver, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1633	RVV
Thallium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1633	RVV
Vanadium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1633	RVV
Zinc, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1633	RVV

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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: MW-5
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-04

Collected By: Whipple, Todd
Collection Date: 04/01/2025 10:43

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Vinyl Chloride	1.3	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 1918	CSM
Chloroethane	8.5	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Acetone	217	10.0	ug/L		04/08/25 0000	04/08/25 1918	CSM
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,1-Dichloroethane	9.8	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
cis-1,2-Dichloroethylene	2.1	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
2-Butanone (MEK)	12.6	10.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Benzene	7.2	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Chlorobenzene	2.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Ethylbenzene	6.7	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Xylenes, total	2.2	2.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: MW-5
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-04

Collected By: Whipple, Todd
Collection Date: 04/01/2025 10:43

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,4-Dichlorobenzene	1.2		1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1714	RAF
Surrogate: Dibromofluoromethane	107	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 1714	RAF
Surrogate: Dibromofluoromethane	107	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 1714	RAF
Surrogate: Dibromofluoromethane	111	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 1918	CSM
Surrogate: 1,2-Dichloroethane-d4	106	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 1714	RAF
Surrogate: 1,2-Dichloroethane-d4	105	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 1918	CSM
Surrogate: 1,2-Dichloroethane-d4	106	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 1714	RAF
Surrogate: Toluene-d8	99.9	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 1714	RAF
Surrogate: Toluene-d8	99.9	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 1714	RAF
Surrogate: Toluene-d8	98.3	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 1918	CSM
Surrogate: 4-Bromofluorobenzene	94.2	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 1918	CSM
Surrogate: 4-Bromofluorobenzene	99.3	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 1714	RAF
Surrogate: 4-Bromofluorobenzene	99.3	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 1714	RAF

Determination of Conventional Chemistry Parameters		Result	RL	Units	Note	Prepared	Analyzed	Analyst

EPA 376.2

Sulfide, total	0.54	0.10	mg/L			04/08/25 1604	04/08/25 1703	AKK

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst

EPA 3005A/EPA 6020A

Antimony, total	<0.0010	0.0010	mg/L			04/17/25 1601	06/18/25 1635	RVV
Arsenic, total	0.0113	0.0020	mg/L			04/17/25 1601	06/18/25 1635	RVV
Barium, total	0.860	0.0010	mg/L			04/17/25 1601	06/18/25 1635	RVV
Beryllium, total	<0.0005	0.0005	mg/L			04/17/25 1601	06/18/25 1635	RVV
Cadmium, total	<0.0002	0.0002	mg/L			04/17/25 1601	06/18/25 1635	RVV
Chromium, total	0.0013	0.0010	mg/L			04/17/25 1601	06/18/25 1635	RVV
Cobalt, total	0.0007	0.0005	mg/L			04/17/25 1601	06/18/25 1635	RVV
Copper, total	<0.0050	0.0050	mg/L			04/17/25 1601	06/18/25 1635	RVV
Lead, total	<0.0010	0.0010	mg/L			04/17/25 1601	06/18/25 1635	RVV
Nickel, total	<0.0050	0.0050	mg/L			04/17/25 1601	06/18/25 1635	RVV
Selenium, total	<0.0020	0.0020	mg/L			04/17/25 1601	06/18/25 1635	RVV
Silver, total	<0.0050	0.0050	mg/L			04/17/25 1601	06/18/25 1635	RVV
Thallium, total	<0.0005	0.0005	mg/L			04/17/25 1601	06/18/25 1635	RVV
Vanadium, total	0.0040	0.0020	mg/L			04/17/25 1601	06/18/25 1635	RVV
Zinc, total	0.0064	0.0050	mg/L			04/17/25 1601	06/18/25 1635	RVV



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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: MW-7
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-05

Collected By: Whipple, Todd
Collection Date: 04/01/2025 8:53

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Vinyl Chloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 1940	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Benzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: MW-7
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-05

Collected By: Whipple, Todd
Collection Date: 04/01/2025 8:53

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1737	RAF
Surrogate: Dibromofluoromethane	105	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 1737	RAF
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 1737	RAF
Surrogate: Dibromofluoromethane	104	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 1940	CSM
Surrogate: 1,2-Dichloroethane-d4	104	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 1737	RAF
Surrogate: 1,2-Dichloroethane-d4	92.8	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 1940	CSM
Surrogate: 1,2-Dichloroethane-d4	104	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 1737	RAF
Surrogate: Toluene-d8	95.1	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 1940	CSM
Surrogate: Toluene-d8	101	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 1737	RAF
Surrogate: Toluene-d8	101	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 1737	RAF
Surrogate: 4-Bromofluorobenzene	99.1	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 1737	RAF
Surrogate: 4-Bromofluorobenzene	99.1	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 1737	RAF
Surrogate: 4-Bromofluorobenzene	92.3	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 1940	CSM

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1643	RVV
Arsenic, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1643	RVV
Barium, total	0.0384		0.0010	mg/L		04/17/25 1601	06/18/25 1643	RVV
Beryllium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1643	RVV
Cadmium, total		<0.0002	0.0002	mg/L		04/17/25 1601	06/18/25 1643	RVV
Chromium, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1643	RVV
Cobalt, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1643	RVV
Copper, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1643	RVV
Lead, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1643	RVV
Nickel, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1643	RVV
Selenium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1643	RVV
Silver, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1643	RVV
Thallium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1643	RVV
Vanadium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1643	RVV
Zinc, total	0.0113		0.0050	mg/L		04/17/25 1601	06/18/25 1643	RVV

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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: MW-9
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-06

Collected By: Whipple, Todd
Collection Date: 04/01/2025 7:41

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Vinyl Chloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 2002	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Benzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: MW-9
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-06

Collected By: Whipple, Todd
Collection Date: 04/01/2025 7:41

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1800	RAF
Surrogate: Dibromofluoromethane	104	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 1800	RAF
Surrogate: Dibromofluoromethane	104	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 1800	RAF
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 2002	CSM
Surrogate: 1,2-Dichloroethane-d4	93.0	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 2002	CSM
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 1800	RAF
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 1800	RAF
Surrogate: Toluene-d8	100	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 1800	RAF
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 1800	RAF
Surrogate: Toluene-d8	97.2	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 2002	CSM
Surrogate: 4-Bromofluorobenzene	95.8	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 2002	CSM
Surrogate: 4-Bromofluorobenzene	97.9	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 1800	RAF
Surrogate: 4-Bromofluorobenzene	97.9	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 1800	RAF

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1645	RVV
Arsenic, total	0.0059		0.0020	mg/L		04/17/25 1601	06/18/25 1645	RVV
Barium, total	0.559		0.0010	mg/L		04/17/25 1601	06/18/25 1645	RVV
Beryllium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1645	RVV
Cadmium, total		<0.0002	0.0002	mg/L		04/17/25 1601	06/18/25 1645	RVV
Chromium, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1645	RVV
Cobalt, total	0.0018		0.0005	mg/L		04/17/25 1601	06/18/25 1645	RVV
Copper, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1645	RVV
Lead, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1645	RVV
Nickel, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1645	RVV
Selenium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1645	RVV
Silver, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1645	RVV
Thallium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1645	RVV
Vanadium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1645	RVV
Zinc, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1645	RVV

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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: MW-16
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-07

Collected By: Whipple, Todd
Collection Date: 04/01/2025 9:20

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Vinyl Chloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 2025	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Benzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: MW-16
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-07

Collected By: Whipple, Todd
Collection Date: 04/01/2025 9:20

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1823	RAF
Surrogate: Dibromofluoromethane	103	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 1823	RAF
Surrogate: Dibromofluoromethane	104	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 2025	CSM
Surrogate: Dibromofluoromethane	103	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 1823	RAF
Surrogate: 1,2-Dichloroethane-d4	93.2	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 2025	CSM
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 1823	RAF
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 1823	RAF
Surrogate: Toluene-d8	98.4	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 2025	CSM
Surrogate: Toluene-d8	100	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 1823	RAF
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 1823	RAF
Surrogate: 4-Bromofluorobenzene	90.5	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 2025	CSM
Surrogate: 4-Bromofluorobenzene	99.1	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 1823	RAF
Surrogate: 4-Bromofluorobenzene	99.1	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 1823	RAF

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1648	RVV
Arsenic, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1648	RVV
Barium, total	0.137		0.0010	mg/L		04/17/25 1601	06/18/25 1648	RVV
Beryllium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1648	RVV
Cadmium, total		<0.0002	0.0002	mg/L		04/17/25 1601	06/18/25 1648	RVV
Chromium, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1648	RVV
Cobalt, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1648	RVV
Copper, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1648	RVV
Lead, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1648	RVV
Nickel, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1648	RVV
Selenium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1648	RVV
Silver, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1648	RVV
Thallium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1648	RVV
Vanadium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1648	RVV
Zinc, total	0.0063		0.0050	mg/L		04/17/25 1601	06/18/25 1648	RVV

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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: MW-24
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-08

Collected By: Whipple, Todd
Collection Date: 04/01/2025 8:41

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Vinyl Chloride	1.7	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 2047	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,1-Dichloroethane	1.5	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Benzene	1.1	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: MW-24
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-08

Collected By: Whipple, Todd
Collection Date: 04/01/2025 8:41

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1846	RAF
Surrogate: Dibromofluoromethane	104	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 1846	RAF
Surrogate: Dibromofluoromethane	104	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 1846	RAF
Surrogate: Dibromofluoromethane	108	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 2047	CSM
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 1846	RAF
Surrogate: 1,2-Dichloroethane-d4	97.6	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 2047	CSM
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 1846	RAF
Surrogate: Toluene-d8	99.7	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 1846	RAF
Surrogate: Toluene-d8	99.7	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 1846	RAF
Surrogate: Toluene-d8	97.5	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 2047	CSM
Surrogate: 4-Bromofluorobenzene	89.9	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 2047	CSM
Surrogate: 4-Bromofluorobenzene	98.7	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 1846	RAF
Surrogate: 4-Bromofluorobenzene	98.7	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 1846	RAF

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1650	RVV
Arsenic, total	0.0048		0.0020	mg/L		04/17/25 1601	06/18/25 1650	RVV
Barium, total	0.522		0.0010	mg/L		04/17/25 1601	06/18/25 1650	RVV
Beryllium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1650	RVV
Cadmium, total		<0.0002	0.0002	mg/L		04/17/25 1601	06/18/25 1650	RVV
Chromium, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1650	RVV
Cobalt, total	0.0017		0.0005	mg/L		04/17/25 1601	06/18/25 1650	RVV
Copper, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1650	RVV
Lead, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1650	RVV
Nickel, total	0.0356		0.0050	mg/L		04/17/25 1601	06/18/25 1650	RVV
Selenium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1650	RVV
Silver, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1650	RVV
Thallium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1650	RVV
Vanadium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1650	RVV
Zinc, total	0.0086		0.0050	mg/L		04/17/25 1601	06/18/25 1650	RVV

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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: MW-25
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-09

Collected By: Whipple, Todd
Collection Date: 04/01/2025 9:07

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Vinyl Chloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 2109	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Benzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: MW-25
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-09

Collected By: Whipple, Todd
Collection Date: 04/01/2025 9:07

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1909	RAF
Surrogate: Dibromofluoromethane	103	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 1909	RAF
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 2109	CSM
Surrogate: Dibromofluoromethane	103	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 1909	RAF
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 1909	RAF
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 1909	RAF
Surrogate: 1,2-Dichloroethane-d4	95.9	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 2109	CSM
Surrogate: Toluene-d8	99.9	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 1909	RAF
Surrogate: Toluene-d8	98.1	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 2109	CSM
Surrogate: Toluene-d8	99.9	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 1909	RAF
Surrogate: 4-Bromofluorobenzene	98.8	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 1909	RAF
Surrogate: 4-Bromofluorobenzene	98.8	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 1909	RAF
Surrogate: 4-Bromofluorobenzene	89.2	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 2109	CSM

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1653	RVV
Arsenic, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1653	RVV
Barium, total	0.0187		0.0010	mg/L		04/17/25 1601	06/18/25 1653	RVV
Beryllium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1653	RVV
Cadmium, total		<0.0002	0.0002	mg/L		04/17/25 1601	06/18/25 1653	RVV
Chromium, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1653	RVV
Cobalt, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1653	RVV
Copper, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1653	RVV
Lead, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1653	RVV
Nickel, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1653	RVV
Selenium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1653	RVV
Silver, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1653	RVV
Thallium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1653	RVV
Vanadium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1653	RVV
Zinc, total	0.0092		0.0050	mg/L		04/17/25 1601	06/18/25 1653	RVV

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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: MW-26
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-10

Collected By: Whipple, Todd
Collection Date: 04/01/2025 9:33

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Vinyl Chloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 2131	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Benzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: MW-26
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-10

Collected By: Whipple, Todd
Collection Date: 04/01/2025 9:33

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1932	RAF
Surrogate: Dibromofluoromethane	100	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 1932	RAF
Surrogate: Dibromofluoromethane	100	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 1932	RAF
Surrogate: Dibromofluoromethane	107	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 2131	CSM
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 1932	RAF
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 1932	RAF
Surrogate: 1,2-Dichloroethane-d4	97.0	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 2131	CSM
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 1932	RAF
Surrogate: Toluene-d8	97.1	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 2131	CSM
Surrogate: Toluene-d8	100	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 1932	RAF
Surrogate: 4-Bromofluorobenzene	99.0	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 1932	RAF
Surrogate: 4-Bromofluorobenzene	88.6	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 2131	CSM
Surrogate: 4-Bromofluorobenzene	99.0	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 1932	RAF

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1655	RVV
Arsenic, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1655	RVV
Barium, total	0.0340	0.0010		mg/L		04/17/25 1601	06/18/25 1655	RVV
Beryllium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1655	RVV
Cadmium, total		<0.0002	0.0002	mg/L		04/17/25 1601	06/18/25 1655	RVV
Chromium, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1655	RVV
Cobalt, total	0.0034	0.0005		mg/L		04/17/25 1601	06/18/25 1655	RVV
Copper, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1655	RVV
Lead, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1655	RVV
Nickel, total	0.0053	0.0050		mg/L		04/17/25 1601	06/18/25 1655	RVV
Selenium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1655	RVV
Silver, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1655	RVV
Thallium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1655	RVV
Vanadium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1655	RVV
Zinc, total	0.0074	0.0050		mg/L		04/17/25 1601	06/18/25 1655	RVV

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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: MW-32
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-11

Collected By: Whipple, Todd
Collection Date: 04/01/2025 8:15

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Vinyl Chloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 2154	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Benzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: MW-32
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-11

Collected By: Whipple, Todd
Collection Date: 04/01/2025 8:15

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 1955	RAF
Surrogate: Dibromofluoromethane	99.9	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 1955	RAF
Surrogate: Dibromofluoromethane	99.9	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 1955	RAF
Surrogate: Dibromofluoromethane	109	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 2154	CSM
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 1955	RAF
Surrogate: 1,2-Dichloroethane-d4	98.0	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 2154	CSM
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 1955	RAF
Surrogate: Toluene-d8	99.4	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 1955	RAF
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 2154	CSM
Surrogate: Toluene-d8	99.4	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 1955	RAF
Surrogate: 4-Bromofluorobenzene	98.0	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 1955	RAF
Surrogate: 4-Bromofluorobenzene	90.6	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 2154	CSM
Surrogate: 4-Bromofluorobenzene	98.0	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 1955	RAF

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1658	RVV
Arsenic, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1658	RVV
Barium, total	0.444		0.0010	mg/L		04/17/25 1601	06/18/25 1658	RVV
Beryllium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1658	RVV
Cadmium, total		<0.0002	0.0002	mg/L		04/17/25 1601	06/18/25 1658	RVV
Chromium, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1658	RVV
Cobalt, total	0.0009		0.0005	mg/L		04/17/25 1601	06/18/25 1658	RVV
Copper, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1658	RVV
Lead, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1658	RVV
Nickel, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1658	RVV
Selenium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1658	RVV
Silver, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1658	RVV
Thallium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1658	RVV
Vanadium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1658	RVV
Zinc, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1658	RVV

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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: MW-33
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-12

Collected By: Whipple, Todd
Collection Date: 04/01/2025 8:03

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Vinyl Chloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 2216	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Benzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: MW-33
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-12

Collected By: Whipple, Todd
Collection Date: 04/01/2025 8:03

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2017	RAF
Surrogate: Dibromofluoromethane	99.4	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 2017	RAF
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 2216	CSM
Surrogate: Dibromofluoromethane	99.4	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 2017	RAF
Surrogate: 1,2-Dichloroethane-d4	98.7	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 2017	RAF
Surrogate: 1,2-Dichloroethane-d4	99.2	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 2216	CSM
Surrogate: 1,2-Dichloroethane-d4	98.7	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 2017	RAF
Surrogate: Toluene-d8	98.8	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 2017	RAF
Surrogate: Toluene-d8	98.8	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 2017	RAF
Surrogate: Toluene-d8	98.5	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 2216	CSM
Surrogate: 4-Bromofluorobenzene	98.3	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 2017	RAF
Surrogate: 4-Bromofluorobenzene	90.6	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 2216	CSM
Surrogate: 4-Bromofluorobenzene	98.3	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 2017	RAF

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1700	RVV
Arsenic, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1700	RVV
Barium, total	0.129		0.0010	mg/L		04/17/25 1601	06/18/25 1700	RVV
Beryllium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1700	RVV
Cadmium, total	0.0003		0.0002	mg/L		04/17/25 1601	06/18/25 1700	RVV
Chromium, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1700	RVV
Cobalt, total	0.0187		0.0005	mg/L		04/17/25 1601	06/18/25 1700	RVV
Copper, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1700	RVV
Lead, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1700	RVV
Nickel, total	0.0150		0.0050	mg/L		04/17/25 1601	06/18/25 1700	RVV
Selenium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1700	RVV
Silver, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1700	RVV
Thallium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1700	RVV
Vanadium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1700	RVV
Zinc, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1700	RVV

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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: ACM Tile 1
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-13

Collected By: Whipple, Todd
Collection Date: 04/01/2025 9:53

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Vinyl Chloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 2238	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Benzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: ACM Tile 1
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-13

Collected By: Whipple, Todd
Collection Date: 04/01/2025 9:53

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2040	RAF
Surrogate: Dibromofluoromethane	111	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 2238	CSM
Surrogate: Dibromofluoromethane	96.9	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 2040	RAF
Surrogate: Dibromofluoromethane	96.9	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 2040	RAF
Surrogate: 1,2-Dichloroethane-d4	97.1	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 2040	RAF
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 2238	CSM
Surrogate: 1,2-Dichloroethane-d4	97.1	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 2040	RAF
Surrogate: Toluene-d8	96.9	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 2238	CSM
Surrogate: Toluene-d8	98.5	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 2040	RAF
Surrogate: Toluene-d8	98.5	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 2040	RAF
Surrogate: 4-Bromofluorobenzene	89.7	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 2238	CSM
Surrogate: 4-Bromofluorobenzene	97.8	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 2040	RAF
Surrogate: 4-Bromofluorobenzene	97.8	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 2040	RAF
Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Arsenic, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1703	RVV

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CERTIFICATE OF ANALYSIS

1ID0654

Client Sample ID: PECS-1
Sample Matrix: Aqueous
Lab Sample ID: 1ID0654-14

Collected By: Whipple, Todd
Collection Date: 04/01/2025 10:03

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Vinyl Chloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Bromomethane	<1.0	1.0	ug/L		04/08/25 0000	04/08/25 2300	CSM
Chloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Acetone	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Methyl Iodide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Carbon Disulfide	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Methylene Chloride	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Acrylonitrile	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Vinyl Acetate	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Bromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Chloroform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Benzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Trichloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Dibromomethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Bromodichloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Toluene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Dibromochloromethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Chlorobenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Ethylbenzene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Xylenes, total	<2.0	2.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Styrene	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Bromoform	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF

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CERTIFICATE OF ANALYSIS

11D0654

Client Sample ID: PECS-1
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-14

Collected By: Whipple, Todd
Collection Date: 04/01/2025 10:03

Determination of Volatile Organic Compounds		Result	RL	Units	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,1,2,2-Tetrachloroethane		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,4-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,2-Dichlorobenzene		<1.0	1.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
1,2-Dibromo-3-chloropropane		<5.0	5.0	ug/L		04/04/25 0000	04/04/25 2103	RAF
Surrogate: Dibromofluoromethane	95.6	Limit: 75-136	% Rec			04/04/25 0000	04/04/25 2103	RAF
Surrogate: Dibromofluoromethane	108	Limit: 75-136	% Rec			04/08/25 0000	04/08/25 2300	CSM
Surrogate: Dibromofluoromethane	95.6	Limit: 57-134	% Rec			04/04/25 0000	04/04/25 2103	RAF
Surrogate: 1,2-Dichloroethane-d4	95.9	Limit: 61-142	% Rec			04/08/25 0000	04/08/25 2300	CSM
Surrogate: 1,2-Dichloroethane-d4	95.8	Limit: 53-140	% Rec			04/04/25 0000	04/04/25 2103	RAF
Surrogate: 1,2-Dichloroethane-d4	95.8	Limit: 61-142	% Rec			04/04/25 0000	04/04/25 2103	RAF
Surrogate: Toluene-d8	95.7	Limit: 82-121	% Rec			04/08/25 0000	04/08/25 2300	CSM
Surrogate: Toluene-d8	98.4	Limit: 82-121	% Rec			04/04/25 0000	04/04/25 2103	RAF
Surrogate: Toluene-d8	98.4	Limit: 86-114	% Rec			04/04/25 0000	04/04/25 2103	RAF
Surrogate: 4-Bromofluorobenzene	90.0	Limit: 80-116	% Rec			04/08/25 0000	04/08/25 2300	CSM
Surrogate: 4-Bromofluorobenzene	98.8	Limit: 78-121	% Rec			04/04/25 0000	04/04/25 2103	RAF
Surrogate: 4-Bromofluorobenzene	98.8	Limit: 80-116	% Rec			04/04/25 0000	04/04/25 2103	RAF

Client Sample ID: Duplicate
Sample Matrix: Aqueous
Lab Sample ID: 11D0654-15

Collected By: Whipple, Todd
Collection Date: 04/01/2025

Determination of Total Metals		Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1705	RVV
Arsenic, total	0.0064		0.0020	mg/L		04/17/25 1601	06/18/25 1705	RVV
Barium, total	0.554		0.0010	mg/L		04/17/25 1601	06/18/25 1705	RVV
Beryllium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1705	RVV
Cadmium, total		<0.0002	0.0002	mg/L		04/17/25 1601	06/18/25 1705	RVV
Chromium, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1705	RVV
Cobalt, total	0.0017		0.0005	mg/L		04/17/25 1601	06/18/25 1705	RVV
Copper, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1705	RVV
Lead, total		<0.0010	0.0010	mg/L		04/17/25 1601	06/18/25 1705	RVV
Nickel, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1705	RVV
Selenium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1705	RVV
Silver, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1705	RVV
Thallium, total		<0.0005	0.0005	mg/L		04/17/25 1601	06/18/25 1705	RVV
Vanadium, total		<0.0020	0.0020	mg/L		04/17/25 1601	06/18/25 1705	RVV
Zinc, total		<0.0050	0.0050	mg/L		04/17/25 1601	06/18/25 1705	RVV

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CERTIFICATE OF ANALYSIS

1ID0654

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1ID0258	1ID0258-BS1	
		1ID0258-BSD1	
		1ID0258-BLK1	
		1ID0654-01	MW-12
		1ID0654-02	MW-21
		1ID0654-03	MW-17
		1ID0654-04	MW-5
		1ID0654-05	MW-7
		1ID0654-06	MW-9
		1ID0654-07	MW-16
		1ID0654-08	MW-24
		1ID0654-09	MW-25
		1ID0654-10	MW-26
		1ID0654-11	MW-32
		1ID0654-12	MW-33
		1ID0654-13	ACM Tile 1
		1ID0654-14	PECS-1
		1ID0258-MS1	1ID0653-01
		1ID0258-MSD1	1ID0653-01
Method	Batch	Laboratory ID	Client / Source ID
EPA 376.2	1ID0413	1ID0413-BLK1	
		1ID0413-BS1	
		1ID0413-MSD1	1ID0654-04
		1ID0654-04	MW-5
		1ID0413-MS1	1ID0654-04
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1ID0430	1ID0430-BS1	
		1ID0430-BSD1	
		1ID0430-BLK1	
		1ID0654-01RE1	MW-12
		1ID0654-02RE1	MW-21
		1ID0654-03RE1	MW-17
		1ID0654-04RE1	MW-5
		1ID0654-05RE1	MW-7
		1ID0654-06RE1	MW-9
		1ID0654-07RE1	MW-16
		1ID0654-08RE1	MW-24
		1ID0654-09RE1	MW-25



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CERTIFICATE OF ANALYSIS

1ID0654

EPA 8260D	1ID0430	1ID0654-10RE1	MW-26
		1ID0654-11RE1	MW-32
		1ID0654-12RE1	MW-33
		1ID0654-13RE1	ACM Tile 1
		1ID0654-14RE1	PECS-1
		1ID0430-MS1	1ID0653-01RE1
		1ID0430-MSD1	1ID0653-01RE1

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1ID0488	1ID0488-BLK1	
		1ID0488-BS1	
		1ID0488-MS1	1ID0653-01
		1ID0488-MSD1	1ID0653-01
		1ID0654-01	MW-12
		1ID0654-02	MW-21
		1ID0654-03	MW-17
		1ID0654-04	MW-5
		1ID0654-05	MW-7
		1ID0654-06	MW-9
		1ID0654-07	MW-16
		1ID0654-08	MW-24
		1ID0654-09	MW-25
		1ID0654-10	MW-26
		1ID0654-11	MW-32
		1ID0654-12	MW-33
		1ID0654-13	ACM Tile 1
		1ID0654-15	Duplicate
		1ID0488-PS1	1ID0653-01
		1ID0488-BS1	

Batch Quality Control Summary: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1ID0258 - EPA 5030B - EPA 8260D										
Blank (1ID0258-BLK1)				Prepared: 04/04/25 00:00 Analyzed: 04/04/25 13:19						
Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							
Trichlorofluoromethane	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<1.0	1.0	ug/L							
Carbon Disulfide	<1.0	1.0	ug/L							

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1ID0654

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1ID0258 - EPA 5030B - EPA 8260D										
Blank (1ID0258-BLK1)				Prepared: 04/04/25 00:00 Analyzed: 04/04/25 13:19						
Methylene Chloride	<5.0	5.0	ug/L							
Acrylonitrile	<5.0	5.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
Vinyl Acetate	<5.0	5.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
Toluene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
Surrogate: Dibromofluoromethane	53.7		ug/L	50.2			107	57-134		
Surrogate: Dibromofluoromethane	53.7		ug/L	50.2			107	75-136		
Surrogate: 1,2-Dichloroethane-d4	52.6		ug/L	50.1			105	53-140		
Surrogate: 1,2-Dichloroethane-d4	52.6		ug/L	50.1			105	61-142		
Surrogate: Toluene-d8	50.9		ug/L	50.4			101	86-114		

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CERTIFICATE OF ANALYSIS

11D0654

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11D0258 - EPA 5030B - EPA 8260D										
Blank (11D0258-BLK1)										
Prepared: 04/04/25 00:00 Analyzed: 04/04/25 13:19										
Surrogate: Toluene-d8	50.9		ug/L	50.4		101	82-121			
Surrogate: 4-Bromofluorobenzene	49.7		ug/L	50.1		99.0	78-121			
Surrogate: 4-Bromofluorobenzene	49.7		ug/L	50.1		99.0	80-116			
LCS (11D0258-BS1)										
Prepared: 04/04/25 00:00 Analyzed: 04/04/25 12:10										
Chloromethane	33.45	1.0	ug/L	30.3		110	63-155			
Vinyl Chloride	35.98	1.0	ug/L	30.2		119	70-154			
Chloroethane	33.57	1.0	ug/L	30.3		111	72-148			
Trichlorofluoromethane	34.76	1.0	ug/L	30.3		115	70-152			
1,1-Dichloroethylene	56.96	1.0	ug/L	50.1		114	70-148			
Acetone	111.2	10.0	ug/L	100		111	43-172			
Methyl Iodide	108.2	1.0	ug/L	100		108	69-170			
Carbon Disulfide	121.3	1.0	ug/L	100		121	72-162			
Methylene Chloride	53.96	5.0	ug/L	50.1		108	68-142			
Acrylonitrile	47.29	5.0	ug/L	50.2		94.2	56-135			
trans-1,2-Dichloroethylene	56.71	1.0	ug/L	50.1		113	66-148			
1,1-Dichloroethane	58.33	1.0	ug/L	50.1		116	66-143			
Vinyl Acetate	164.0	5.0	ug/L	140		117	43-153			
cis-1,2-Dichloroethylene	55.48	1.0	ug/L	50.4		110	71-149			
2-Butanone (MEK)	98.48	10.0	ug/L	100		98.5	52-159			
Bromochloromethane	53.63	1.0	ug/L	50.4		106	69-143			
Chloroform	56.70	1.0	ug/L	50.1		113	69-144			
1,1,1-Trichloroethane	56.60	1.0	ug/L	50.1		113	62-129			
Carbon Tetrachloride	54.14	1.0	ug/L	50.1		108	63-141			
Benzene	53.02	1.0	ug/L	50.4		105	71-134			
1,2-Dichloroethane	51.88	1.0	ug/L	50.1		104	72-132			
Trichloroethylene	54.96	1.0	ug/L	50.1		110	71-135			
1,2-Dichloropropane	52.66	1.0	ug/L	50.1		105	69-136			
Dibromomethane	52.10	1.0	ug/L	50.4		103	73-147			
Bromodichloromethane	51.10	1.0	ug/L	50.1		102	68-129			
cis-1,3-Dichloropropene	54.46	1.0	ug/L	50.1		109	65-134			
4-Methyl-2-pentanone (MIBK)	97.72	5.0	ug/L	100		97.7	58-147			
Toluene	53.98	1.0	ug/L	50.5		107	72-133			
trans-1,3-Dichloropropene	54.00	1.0	ug/L	50.1		108	67-130			
1,1,2-Trichloroethane	49.70	1.0	ug/L	50.1		99.2	69-135			
Tetrachloroethylene	54.68	1.0	ug/L	50.1		109	69-130			
2-Hexanone (MBK)	91.56	5.0	ug/L	100		91.6	55-144			
Dibromochloromethane	51.52	1.0	ug/L	50.1		103	73-127			
1,2-Dibromoethane	51.68	1.0	ug/L	50.2		103	67-132			
Chlorobenzene	60.52	1.0	ug/L	50.1		121	72-123			
1,1,1,2-Tetrachloroethane	52.01	1.0	ug/L	50.3		103	73-127			
Ethylbenzene	54.79	1.0	ug/L	50.2		109	71-127			
Xylenes, total	165.8	2.0	ug/L	151		110	74-127			

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CERTIFICATE OF ANALYSIS

11D0654

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11D0258 - EPA 5030B - EPA 8260D										
LCS (11D0258-BS1) Prepared: 04/04/25 00:00 Analyzed: 04/04/25 12:10										
Styrene	52.56	1.0	ug/L	50.4		104	66-126			
Bromoform	49.38	1.0	ug/L	50.1		98.5	68-130			
1,2,3-Trichloropropane	47.19	1.0	ug/L	50.3		93.7	63-136			
trans-1,4-Dichloro-2-butene	103.6	5.0	ug/L	100		104	54-134			
1,1,2,2-Tetrachloroethane	47.11	1.0	ug/L	50.1		94.0	61-131			
1,4-Dichlorobenzene	58.85	1.0	ug/L	50.1		117	70-129			
1,2-Dichlorobenzene	57.68	1.0	ug/L	50.1		115	69-126			
1,2-Dibromo-3-chloropropane	47.62	5.0	ug/L	50.1		95.0	50-143			
Surrogate: Dibromofluoromethane	53.1		ug/L	50.2		106	57-134			
Surrogate: Dibromofluoromethane	53.1		ug/L	50.2		106	75-136			
Surrogate: 1,2-Dichloroethane-d4	51.5		ug/L	50.1		103	53-140			
Surrogate: 1,2-Dichloroethane-d4	51.5		ug/L	50.1		103	61-142			
Surrogate: Toluene-d8	50.4		ug/L	50.4		100	86-114			
Surrogate: Toluene-d8	50.4		ug/L	50.4		100	82-121			
Surrogate: 4-Bromofluorobenzene	50.1		ug/L	50.1		99.9	78-121			
Surrogate: 4-Bromofluorobenzene	50.1		ug/L	50.1		99.9	80-116			
LCS Dup (11D0258-BSD1) Prepared: 04/04/25 00:00 Analyzed: 04/04/25 12:33										
Chloromethane	32.00	1.0	ug/L	30.3		106	63-155	4.43	24	
Vinyl Chloride	34.08	1.0	ug/L	30.2		113	70-154	5.42	25	
Chloroethane	32.38	1.0	ug/L	30.3		107	72-148	3.61	25	
Trichlorofluoromethane	33.25	1.0	ug/L	30.3		110	70-152	4.44	26	
1,1-Dichloroethylene	54.66	1.0	ug/L	50.1		109	70-148	4.12	24	
Acetone	106.0	10.0	ug/L	100		106	43-172	4.73	30	
Methyl Iodide	109.1	1.0	ug/L	100		109	69-170	0.819	30	
Carbon Disulfide	115.0	1.0	ug/L	100		115	72-162	5.36	24	
Methylene Chloride	53.34	5.0	ug/L	50.1		106	68-142	1.16	21	
Acrylonitrile	50.49	5.0	ug/L	50.2		101	56-135	6.55	16	
trans-1,2-Dichloroethylene	54.58	1.0	ug/L	50.1		109	66-148	3.83	27	
1,1-Dichloroethane	55.88	1.0	ug/L	50.1		112	66-143	4.29	24	
Vinyl Acetate	166.2	5.0	ug/L	140		119	43-153	1.27	30	
cis-1,2-Dichloroethylene	54.36	1.0	ug/L	50.4		108	71-149	2.04	26	
2-Butanone (MEK)	103.7	10.0	ug/L	100		104	52-159	5.13	27	
Bromochloromethane	52.07	1.0	ug/L	50.4		103	69-143	2.95	23	
Chloroform	54.98	1.0	ug/L	50.1		110	69-144	3.08	23	
1,1,1-Trichloroethane	54.19	1.0	ug/L	50.1		108	62-129	4.35	24	
Carbon Tetrachloride	51.35	1.0	ug/L	50.1		103	63-141	5.29	25	
Benzene	51.38	1.0	ug/L	50.4		102	71-134	3.14	24	
1,2-Dichloroethane	52.04	1.0	ug/L	50.1		104	72-132	0.308	24	
Trichloroethylene	52.44	1.0	ug/L	50.1		105	71-135	4.69	24	
1,2-Dichloropropane	51.78	1.0	ug/L	50.1		103	69-136	1.69	24	
Dibromomethane	51.74	1.0	ug/L	50.4		103	73-147	0.693	25	
Bromodichloromethane	49.46	1.0	ug/L	50.1		98.7	68-129	3.26	22	
cis-1,3-Dichloropropene	53.06	1.0	ug/L	50.1		106	65-134	2.60	23	

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

11D0654

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11D0258 - EPA 5030B - EPA 8260D										
LCS Dup (11D0258-BSD1)				Prepared: 04/04/25 00:00 Analyzed: 04/04/25 12:33						
4-Methyl-2-pentanone (MIBK)	99.87	5.0	ug/L	100		99.9	58-147	2.18	27	
Toluene	52.16	1.0	ug/L	50.5		103	72-133	3.43	24	
trans-1,3-Dichloropropene	52.84	1.0	ug/L	50.1		106	67-130	2.17	24	
1,1,2-Trichloroethane	49.95	1.0	ug/L	50.1		99.7	69-135	0.502	23	
Tetrachloroethylene	53.01	1.0	ug/L	50.1		106	69-130	3.10	25	
2-Hexanone (MBK)	93.16	5.0	ug/L	100		93.2	55-144	1.73	25	
Dibromochloromethane	51.05	1.0	ug/L	50.1		102	73-127	0.916	22	
1,2-Dibromoethane	51.52	1.0	ug/L	50.2		103	67-132	0.310	24	
Chlorobenzene	59.04	1.0	ug/L	50.1		118	72-123	2.48	23	
1,1,1,2-Tetrachloroethane	51.46	1.0	ug/L	50.3		102	73-127	1.06	24	
Ethylbenzene	53.55	1.0	ug/L	50.2		107	71-127	2.29	26	
Xylenes, total	162.6	2.0	ug/L	151		108	74-127	1.90	25	
Styrene	51.32	1.0	ug/L	50.4		102	66-126	2.39	23	
Bromoform	49.97	1.0	ug/L	50.1		99.7	68-130	1.19	23	
1,2,3-Trichloropropane	48.22	1.0	ug/L	50.3		95.8	63-136	2.16	24	
trans-1,4-Dichloro-2-butene	103.5	5.0	ug/L	100		103	54-134	0.106	27	
1,1,2,2-Tetrachloroethane	48.24	1.0	ug/L	50.1		96.3	61-131	2.37	29	
1,4-Dichlorobenzene	57.73	1.0	ug/L	50.1		115	70-129	1.92	24	
1,2-Dichlorobenzene	56.93	1.0	ug/L	50.1		114	69-126	1.31	26	
1,2-Dibromo-3-chloropropane	49.72	5.0	ug/L	50.1		99.2	50-143	4.31	30	
Surrogate: Dibromofluoromethane	53.1		ug/L	50.2		106	57-134			
Surrogate: Dibromofluoromethane	53.1		ug/L	50.2		106	75-136			
Surrogate: 1,2-Dichloroethane-d4	52.0		ug/L	50.1		104	53-140			
Surrogate: 1,2-Dichloroethane-d4	52.0		ug/L	50.1		104	61-142			
Surrogate: Toluene-d8	50.2		ug/L	50.4		99.6	86-114			
Surrogate: Toluene-d8	50.2		ug/L	50.4		99.6	82-121			
Surrogate: 4-Bromofluorobenzene	49.6		ug/L	50.1		99.0	78-121			
Surrogate: 4-Bromofluorobenzene	49.6		ug/L	50.1		99.0	80-116			
Matrix Spike (11D0258-MS1)				Source: 11D0653-01		Prepared: 04/04/25 00:00 Analyzed: 04/04/25 21:26				
Chloromethane	289.4	10.0	ug/L	303	ND	95.4	61-152			
Vinyl Chloride	311.9	10.0	ug/L	302	ND	103	66-149			
Chloroethane	294.5	10.0	ug/L	303	ND	97.1	69-148			
Trichlorofluoromethane	300.4	10.0	ug/L	303	ND	99.1	62-163			
1,1-Dichloroethylene	494.7	10.0	ug/L	501	ND	98.7	70-148			
Acetone	876.0	100	ug/L	1000	ND	87.6	45-173			
Methyl Iodide	910.6	10.0	ug/L	1000	ND	91.1	62-167			
Carbon Disulfide	1004	10.0	ug/L	1000	ND	100	71-163			
Methylene Chloride	470.1	50.0	ug/L	501	ND	93.8	69-140			
Acrylonitrile	425.6	50.0	ug/L	502	ND	84.8	38-147			
trans-1,2-Dichloroethylene	490.3	10.0	ug/L	501	ND	97.9	69-144			
1,1-Dichloroethane	504.6	10.0	ug/L	501	ND	101	70-138			
Vinyl Acetate	1408	50.0	ug/L	1400	ND	101	58-142			
cis-1,2-Dichloroethylene	468.3	10.0	ug/L	504	ND	93.0	68-151			

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CERTIFICATE OF ANALYSIS

1ID0654

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1ID0258 - EPA 5030B - EPA 8260D										
Matrix Spike (1ID0258-MS1)	Source: 1ID0653-01			Prepared: 04/04/25 00:00 Analyzed: 04/04/25 21:26						
2-Butanone (MEK)	862.5	100	ug/L	1000	ND	86.2	50-160			
Bromochloromethane	473.2	10.0	ug/L	504	ND	93.9	65-143			
Chloroform	491.6	10.0	ug/L	501	ND	98.2	71-143			
1,1,1-Trichloroethane	487.5	10.0	ug/L	501	ND	97.3	63-133			
Carbon Tetrachloride	462.0	10.0	ug/L	501	ND	92.2	63-142			
Benzene	497.2	10.0	ug/L	504	ND	98.6	69-133			
1,2-Dichloroethane	489.7	10.0	ug/L	501	ND	97.8	63-138			
Trichloroethylene	513.0	10.0	ug/L	501	ND	102	71-133			
1,2-Dichloropropane	505.9	10.0	ug/L	501	ND	101	69-132			
Dibromomethane	491.5	10.0	ug/L	504	ND	97.6	70-147			
Bromodichloromethane	474.3	10.0	ug/L	501	ND	94.7	67-130			
cis-1,3-Dichloropropene	492.3	10.0	ug/L	501	ND	98.3	61-126			
4-Methyl-2-pentanone (MIBK)	938.7	50.0	ug/L	1000	ND	93.9	55-147			
Toluene	508.0	10.0	ug/L	505	ND	101	71-133			
trans-1,3-Dichloropropene	489.2	10.0	ug/L	501	ND	97.7	63-124			
1,1,2-Trichloroethane	478.9	10.0	ug/L	501	ND	95.6	69-133			
Tetrachloroethylene	521.6	10.0	ug/L	501	ND	104	70-124			
2-Hexanone (MBK)	873.9	50.0	ug/L	1000	ND	87.4	53-141			
Dibromochloromethane	488.4	10.0	ug/L	501	ND	97.5	74-122			
1,2-Dibromoethane	494.3	10.0	ug/L	502	ND	98.4	66-127			
Chlorobenzene	581.7	10.0	ug/L	501	ND	116	76-116			
1,1,1,2-Tetrachloroethane	503.4	10.0	ug/L	503	ND	100	77-121			
Ethylbenzene	527.6	10.0	ug/L	502	ND	105	73-124			
Xylenes, total	1589	20.0	ug/L	1510	ND	105	75-123			
Styrene	505.1	10.0	ug/L	504	ND	100	70-120			
Bromoform	468.2	10.0	ug/L	501	ND	93.4	70-124			
1,2,3-Trichloropropane	458.7	10.0	ug/L	503	ND	91.1	62-135			
trans-1,4-Dichloro-2-butene	906.3	50.0	ug/L	1000	ND	90.6	50-120			
1,1,2,2-Tetrachloroethane	451.9	10.0	ug/L	501	ND	90.2	63-126			
1,4-Dichlorobenzene	564.1	10.0	ug/L	501	ND	113	72-119			
1,2-Dichlorobenzene	552.8	10.0	ug/L	501	ND	110	71-117			
1,2-Dibromo-3-chloropropane	454.2	50.0	ug/L	501	ND	90.6	49-134			
Surrogate: Dibromofluoromethane	474		ug/L	502		94.6	57-134			
Surrogate: Dibromofluoromethane	474		ug/L	502		94.6	75-136			
Surrogate: 1,2-Dichloroethane-d4	469		ug/L	501		93.6	53-140			
Surrogate: 1,2-Dichloroethane-d4	469		ug/L	501		93.6	61-142			
Surrogate: Toluene-d8	494		ug/L	504		98.0	86-114			
Surrogate: Toluene-d8	494		ug/L	504		98.0	82-121			
Surrogate: 4-Bromofluorobenzene	493		ug/L	501		98.4	78-121			
Surrogate: 4-Bromofluorobenzene	493		ug/L	501		98.4	80-116			
Matrix Spike Dup (1ID0258-MSD1)	Source: 1ID0653-01			Prepared: 04/04/25 00:00 Analyzed: 04/04/25 21:49						
Chloromethane	281.2	10.0	ug/L	303	ND	92.7	61-152	2.87	26	
Vinyl Chloride	298.8	10.0	ug/L	302	ND	98.8	66-149	4.29	23	

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CERTIFICATE OF ANALYSIS

11D0654

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11D0258 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (11D0258-MSD1) Source: 11D0653-01 Prepared: 04/04/25 00:00 Analyzed: 04/04/25 21:49										
Chloroethane	281.3	10.0	ug/L	303	ND	92.8	69-148	4.58	25	
Trichlorofluoromethane	288.7	10.0	ug/L	303	ND	95.3	62-163	3.97	25	
1,1-Dichloroethylene	476.1	10.0	ug/L	501	ND	95.0	70-148	3.83	22	
Acetone	860.9	100	ug/L	1000	ND	86.1	45-173	1.74	30	
Methyl Iodide	928.5	10.0	ug/L	1000	ND	92.8	62-167	1.95	24	
Carbon Disulfide	972.9	10.0	ug/L	1000	ND	97.3	71-163	3.19	22	
Methylene Chloride	456.3	50.0	ug/L	501	ND	91.1	69-140	2.98	19	
Acrylonitrile	444.6	50.0	ug/L	502	ND	88.6	38-147	4.37	30	
trans-1,2-Dichloroethylene	475.8	10.0	ug/L	501	ND	95.0	69-144	3.00	22	
1,1-Dichloroethane	488.5	10.0	ug/L	501	ND	97.5	70-138	3.24	20	
Vinyl Acetate	1364	50.0	ug/L	1400	ND	97.4	58-142	3.16	24	
cis-1,2-Dichloroethylene	460.5	10.0	ug/L	504	ND	91.5	68-151	1.68	22	
2-Butanone (MEK)	860.4	100	ug/L	1000	ND	86.0	50-160	0.244	23	
Bromochloromethane	461.5	10.0	ug/L	504	ND	91.6	65-143	2.50	22	
Chloroform	475.8	10.0	ug/L	501	ND	95.0	71-143	3.27	21	
1,1,1-Trichloroethane	471.9	10.0	ug/L	501	ND	94.2	63-133	3.25	23	
Carbon Tetrachloride	447.7	10.0	ug/L	501	ND	89.4	63-142	3.14	22	
Benzene	490.8	10.0	ug/L	504	ND	97.3	69-133	1.30	18	
1,2-Dichloroethane	486.8	10.0	ug/L	501	ND	97.2	63-138	0.594	20	
Trichloroethylene	503.8	10.0	ug/L	501	ND	101	71-133	1.81	23	
1,2-Dichloropropane	499.6	10.0	ug/L	501	ND	99.7	69-132	1.25	20	
Dibromomethane	497.1	10.0	ug/L	504	ND	98.7	70-147	1.13	22	
Bromodichloromethane	468.3	10.0	ug/L	501	ND	93.5	67-130	1.27	21	
cis-1,3-Dichloropropene	488.5	10.0	ug/L	501	ND	97.5	61-126	0.775	21	
4-Methyl-2-pentanone (MIBK)	947.3	50.0	ug/L	1000	ND	94.7	55-147	0.912	23	
Toluene	498.4	10.0	ug/L	505	ND	98.7	71-133	1.91	19	
trans-1,3-Dichloropropene	482.4	10.0	ug/L	501	ND	96.3	63-124	1.40	21	
1,1,2-Trichloroethane	475.0	10.0	ug/L	501	ND	94.8	69-133	0.818	19	
Tetrachloroethylene	508.5	10.0	ug/L	501	ND	102	70-124	2.54	24	
2-Hexanone (MBK)	879.7	50.0	ug/L	1000	ND	88.0	53-141	0.661	24	
Dibromochloromethane	482.5	10.0	ug/L	501	ND	96.4	74-122	1.22	21	
1,2-Dibromoethane	498.5	10.0	ug/L	502	ND	99.3	66-127	0.846	23	
Chlorobenzene	573.9	10.0	ug/L	501	ND	115	76-116	1.35	21	
1,1,1,2-Tetrachloroethane	499.0	10.0	ug/L	503	ND	99.1	77-121	0.878	25	
Ethylbenzene	517.0	10.0	ug/L	502	ND	103	73-124	2.03	20	
Xylenes, total	1564	20.0	ug/L	1510	ND	103	75-123	1.62	20	
Styrene	494.9	10.0	ug/L	504	ND	98.3	70-120	2.04	23	
Bromoform	469.1	10.0	ug/L	501	ND	93.6	70-124	0.192	22	
1,2,3-Trichloropropane	451.0	10.0	ug/L	503	ND	89.6	62-135	1.69	28	
trans-1,4-Dichloro-2-butene	914.0	50.0	ug/L	1000	ND	91.4	50-120	0.846	26	
1,1,2,2-Tetrachloroethane	448.2	10.0	ug/L	501	ND	89.5	63-126	0.822	24	
1,4-Dichlorobenzene	553.1	10.0	ug/L	501	ND	110	72-119	1.97	24	
1,2-Dichlorobenzene	549.5	10.0	ug/L	501	ND	110	71-117	0.599	24	

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CERTIFICATE OF ANALYSIS

1ID0654

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1ID0258 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (1ID0258-MSD1)		Source: 1ID0653-01		Prepared: 04/04/25 00:00 Analyzed: 04/04/25 21:49						
1,2-Dibromo-3-chloropropane	461.5	50.0	ug/L	501	ND	92.1	49-134	1.59	28	
Surrogate: Dibromofluoromethane	469		ug/L	502		93.4	57-134			
Surrogate: Dibromofluoromethane	469		ug/L	502		93.4	75-136			
Surrogate: 1,2-Dichloroethane-d4	461		ug/L	501		92.0	53-140			
Surrogate: 1,2-Dichloroethane-d4	461		ug/L	501		92.0	61-142			
Surrogate: Toluene-d8	495		ug/L	504		98.3	86-114			
Surrogate: Toluene-d8	495		ug/L	504		98.3	82-121			
Surrogate: 4-Bromofluorobenzene	498		ug/L	501		99.2	78-121			
Surrogate: 4-Bromofluorobenzene	498		ug/L	501		99.2	80-116			
Batch 1ID0430 - EPA 5030B - EPA 8260D										
Blank (1ID0430-BLK1)		Prepared: 04/08/25 00:00 Analyzed: 04/08/25 14:42								
Bromomethane	<1.0	1.0	ug/L							
Surrogate: Dibromofluoromethane	48.1		ug/L	50.2		95.9	75-136			
Surrogate: 1,2-Dichloroethane-d4	43.0		ug/L	50.1		85.9	61-142			
Surrogate: Toluene-d8	47.6		ug/L	50.4		94.4	82-121			
Surrogate: 4-Bromofluorobenzene	46.5		ug/L	50.1		92.7	80-116			
LCS (1ID0430-BS1)		Prepared: 04/08/25 00:00 Analyzed: 04/08/25 13:36								
Bromomethane	31.58	1.0	ug/L	30.1		105	52-176			
Surrogate: Dibromofluoromethane	48.8		ug/L	50.2		97.3	75-136			
Surrogate: 1,2-Dichloroethane-d4	43.0		ug/L	50.1		85.8	61-142			
Surrogate: Toluene-d8	52.3		ug/L	50.4		104	82-121			
Surrogate: 4-Bromofluorobenzene	49.7		ug/L	50.1		99.1	80-116			
LCS Dup (1ID0430-BSD1)		Prepared: 04/08/25 00:00 Analyzed: 04/08/25 13:58								
Bromomethane	29.48	1.0	ug/L	30.1		97.9	52-176	6.88	27	
Surrogate: Dibromofluoromethane	52.1		ug/L	50.2		104	75-136			
Surrogate: 1,2-Dichloroethane-d4	48.1		ug/L	50.1		96.1	61-142			
Surrogate: Toluene-d8	52.3		ug/L	50.4		104	82-121			
Surrogate: 4-Bromofluorobenzene	51.3		ug/L	50.1		102	80-116			
Matrix Spike (1ID0430-MS1)		Source: 1ID0653-01RE1		Prepared: 04/08/25 00:00 Analyzed: 04/08/25 23:23						
Bromomethane	281.3	10.0	ug/L	301	ND	93.4	43-171			
Surrogate: Dibromofluoromethane	565		ug/L	502		113	75-136			
Surrogate: 1,2-Dichloroethane-d4	525		ug/L	501		105	61-142			
Surrogate: Toluene-d8	518		ug/L	504		103	82-121			
Surrogate: 4-Bromofluorobenzene	525		ug/L	501		105	80-116			
Matrix Spike Dup (1ID0430-MSD1)		Source: 1ID0653-01RE1		Prepared: 04/08/25 00:00 Analyzed: 04/08/25 23:45						
Bromomethane	273.1	10.0	ug/L	301	ND	90.7	43-171	2.96	29	
Surrogate: Dibromofluoromethane	552		ug/L	502		110	75-136			
Surrogate: 1,2-Dichloroethane-d4	521		ug/L	501		104	61-142			
Surrogate: Toluene-d8	517		ug/L	504		103	82-121			

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CERTIFICATE OF ANALYSIS

1ID0654

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1ID0430 - EPA 5030B - EPA 8260D										

Matrix Spike Dup (1ID0430-MSD1) Source: 1ID0653-01RE1 Prepared: 04/08/25 00:00 Analyzed: 04/08/25 23:45

Surrogate: 4-Bromofluorobenzene	521		ug/L	501		104	80-116			

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch 1ID0413 - Wet Chem Preparation - EPA 376.2

Blank (1ID0413-BLK1) Prepared: 04/08/25 16:04 Analyzed: 04/08/25 17:03

Sulfide, total	<0.10	0.10	mg/L							

LCS (1ID0413-BS1) Prepared: 04/08/25 16:04 Analyzed: 04/08/25 17:03

Sulfide, total	0.263	0.10	mg/L	0.31		83.4	56-118			

Matrix Spike (1ID0413-MS1) Source: 1ID0654-04 Prepared: 04/08/25 16:04 Analyzed: 04/08/25 17:03

Sulfide, total	1.17	0.30	mg/L	0.94	0.544	66.3	50-150			

Matrix Spike Dup (1ID0413-MSD1) Source: 1ID0654-04 Prepared: 04/08/25 16:04 Analyzed: 04/08/25 17:03

Sulfide, total	1.07	0.30	mg/L	0.94	0.544	55.6	50-150	9.03	30	

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1ID0488 - EPA 3005A Total Recoverable Metals - EPA 6020A										

Blank (1ID0488-BLK1) Prepared: 04/17/25 16:01 Analyzed: 06/18/25 15:55

Antimony, total	<0.0010	0.0010	mg/L							
Arsenic, total	<0.0020	0.0020	mg/L							
Barium, total	<0.0010	0.0010	mg/L							
Beryllium, total	<0.0005	0.0005	mg/L							
Cadmium, total	<0.0002	0.0002	mg/L							
Chromium, total	<0.0010	0.0010	mg/L							B
Cobalt, total	<0.0005	0.0005	mg/L							
Copper, total	<0.0050	0.0050	mg/L							
Lead, total	<0.0010	0.0010	mg/L							
Nickel, total	<0.0050	0.0050	mg/L							
Selenium, total	<0.0020	0.0020	mg/L							
Silver, total	<0.0050	0.0050	mg/L							
Thallium, total	<0.0005	0.0005	mg/L							
Vanadium, total	<0.0020	0.0020	mg/L							
Zinc, total	<0.0050	0.0050	mg/L							

LCS (1ID0488-BS1) Prepared: 04/17/25 16:01 Analyzed: 06/18/25 15:57

Antimony, total	0.108	0.0010	mg/L	0.100		108	80-120			
Arsenic, total	0.0963	0.0020	mg/L	0.100		96.3	80-120			
Barium, total	0.114	0.0010	mg/L	0.100		114	80-120			
Beryllium, total	0.116	0.0005	mg/L	0.100		116	80-120			



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CERTIFICATE OF ANALYSIS

1ID0654

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1ID0488 - EPA 3005A Total Recoverable Metals - EPA 6020A										
LCS (1ID0488-BS1)				Prepared: 04/17/25 16:01 Analyzed: 06/18/25 15:57						
Cadmium, total	0.102	0.0002	mg/L	0.100		102	80-120			
Chromium, total	0.116	0.0010	mg/L	0.100		116	80-120			
Cobalt, total	0.116	0.0005	mg/L	0.100		116	80-120			
Copper, total	0.0901	0.0050	mg/L	0.100		90.1	80-120			
Lead, total	0.101	0.0010	mg/L	0.100		101	80-120			
Nickel, total	0.0888	0.0050	mg/L	0.100		88.8	80-120			
Selenium, total	0.0988	0.0020	mg/L	0.100		98.8	80-120			
Silver, total	0.113	0.0050	mg/L	0.100		113	80-120			
Thallium, total	0.108	0.0005	mg/L	0.100		108	80-120			
Vanadium, total	0.116	0.0020	mg/L	0.100		116	80-120			
Zinc, total	0.0941	0.0050	mg/L	0.100		94.1	80-120			
Matrix Spike (1ID0488-MS1)				Source: 1ID0653-01		Prepared: 04/17/25 16:01 Analyzed: 06/18/25 16:02				
Antimony, total	0.115	0.0010	mg/L	0.100	ND	115	75-125			
Arsenic, total	0.0966	0.0020	mg/L	0.100	ND	96.6	75-125			
Barium, total	0.487	0.0010	mg/L	0.100	0.341	145	75-125			M1
Beryllium, total	0.119	0.0005	mg/L	0.100	0.0002	119	75-125			
Cadmium, total	0.102	0.0002	mg/L	0.100	0.0003	102	75-125			
Chromium, total	0.115	0.0010	mg/L	0.100	0.0011	114	75-125			
Cobalt, total	0.108	0.0005	mg/L	0.100	0.0005	107	75-125			
Copper, total	0.0841	0.0050	mg/L	0.100	0.0015	82.7	75-125			
Lead, total	0.103	0.0010	mg/L	0.100	0.0002	103	75-125			
Nickel, total	0.0846	0.0050	mg/L	0.100	0.0022	82.4	75-125			
Selenium, total	0.0994	0.0020	mg/L	0.100	ND	99.4	75-125			
Silver, total	0.109	0.0050	mg/L	0.100	ND	109	75-125			
Thallium, total	0.113	0.0005	mg/L	0.100	0.0002	113	75-125			
Vanadium, total	0.120	0.0020	mg/L	0.100	ND	120	75-125			
Zinc, total	0.0927	0.0050	mg/L	0.100	0.0050	87.7	75-125			
Matrix Spike Dup (1ID0488-MSD1)				Source: 1ID0653-01		Prepared: 04/17/25 16:01 Analyzed: 06/18/25 16:05				
Antimony, total	0.112	0.0010	mg/L	0.100	ND	112	75-125	2.54	20	
Arsenic, total	0.0932	0.0020	mg/L	0.100	ND	93.2	75-125	3.58	20	
Barium, total	0.471	0.0010	mg/L	0.100	0.341	130	75-125	3.19	20	M1
Beryllium, total	0.117	0.0005	mg/L	0.100	0.0002	117	75-125	1.68	20	
Cadmium, total	0.100	0.0002	mg/L	0.100	0.0003	100	75-125	1.91	20	
Chromium, total	0.109	0.0010	mg/L	0.100	0.0011	108	75-125	5.53	20	
Cobalt, total	0.104	0.0005	mg/L	0.100	0.0005	104	75-125	3.46	20	
Copper, total	0.0826	0.0050	mg/L	0.100	0.0015	81.2	75-125	1.81	20	
Lead, total	0.102	0.0010	mg/L	0.100	0.0002	102	75-125	0.928	20	
Nickel, total	0.0829	0.0050	mg/L	0.100	0.0022	80.7	75-125	1.98	20	
Selenium, total	0.0970	0.0020	mg/L	0.100	ND	97.0	75-125	2.42	20	
Silver, total	0.109	0.0050	mg/L	0.100	ND	109	75-125	0.691	20	
Thallium, total	0.112	0.0005	mg/L	0.100	0.0002	112	75-125	0.898	20	
Vanadium, total	0.113	0.0020	mg/L	0.100	ND	113	75-125	5.80	20	
Zinc, total	0.0909	0.0050	mg/L	0.100	0.0050	85.9	75-125	1.97	20	

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CERTIFICATE OF ANALYSIS

11D0654

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11D0488 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Post Spike (11D0488-PS1)		Source: 11D0653-01		Prepared: 04/17/25 16:01 Analyzed: 06/19/25 09:28						
Antimony, total	0.0210		mg/L	0.0200	0.0004	103	80-120			
Arsenic, total	0.0200		mg/L	0.0200	0.0002	99.1	80-120			
Barium, total	0.355		mg/L	0.0200	0.335	103	80-120			
Beryllium, total	0.0223		mg/L	0.0200	0.0002	110	80-120			
Cadmium, total	0.0204		mg/L	0.0200	0.0003	100	80-120			
Chromium, total	0.0221		mg/L	0.0200	0.0011	105	80-120			
Cobalt, total	0.0203		mg/L	0.0200	0.0005	98.9	80-120			
Copper, total	0.0183		mg/L	0.0200	0.0014	84.6	80-120			
Lead, total	0.0195		mg/L	0.0200	0.0002	96.4	80-120			
Nickel, total	0.0187		mg/L	0.0200	0.0021	82.6	80-120			
Selenium, total	0.0203		mg/L	0.0200	0.0003	99.6	80-120			
Silver, total	0.0207		mg/L	0.0200	0.0002	103	80-120			
Thallium, total	0.0204		mg/L	0.0200	0.0002	101	80-120			
Vanadium, total	0.0220		mg/L	0.0200	0.000005	110	80-120			
Zinc, total	0.0231		mg/L	0.0200	0.0049	90.8	80-120			

Definitions

B:	The target analyte was detected in the blank at or above the method acceptance criteria.
M1:	Matrix spike recovery is above acceptance limits.
RL:	Reporting Limit
RPD:	Relative Percent Difference

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 0.2°C

Cooler Inspection Checklist

Custody Seals	No	Containers Intact	Yes
COC/Labels Agree	Yes	Preservation Confirmed	No
Received On Ice	Yes		

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.

Reviewed and Approved By:

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
06/20/25 08:46



600 East 1
Newton, IA
641-792-8

CHAIN OF CUSTODY RECORD



HLW Engineering
PM: Heather Murphy

Page 1 of

Printed: 3/24/2025 10:18:38A

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SITE INFORMATION

Sampler: TODD WHIPPLE

Project: Fayette Co. Landfill-New Regs
6040

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___

REPORT TO

Todd Whipple
HLW Engineering
204 West Broad St
Story City, IA 50248

INVOICE TO

Joan Swenka
Fayette County Landfill
10275 Kornhill Road
Fayette, IA 52142

LAB USE ONLY

Work Order 1ID0654

Temperature 0.2

Turn-Cooler: No



Custody Seal
Containers Intact
COC/Labels Agree
Preservation Confirmed
Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses		Lab Sample Number
-001	MW-12	Aqueous	GRAB	<u>4/1/25</u>	<u>10:25</u>	<u>7</u>	Indfill-app1-voc-group	Indfil-app1-metals-6020	<u>01</u>
-001	MW-21	Aqueous	GRAB	<u>4/1/25</u>	<u>11:07</u>	<u>7</u>	Indfill-app1-voc-group	Indfil-app1-metals-6020	<u>02</u>
-001	MW-17	Aqueous	GRAB	<u>4/1/25</u>	<u>11:20</u>	<u>7</u>	Indfill-app1-voc-group	Indfil-app1-metals-6020	<u>03</u>
-001	MW-5	Aqueous	GRAB	<u>4/1/25</u>	<u>10:43</u>	<u>8</u>	Indfill-app1-voc-group sulf-i-376.2-regen	Indfil-app1-metals-6020	<u>04</u>
-001	MW-7	Aqueous	GRAB	<u>4/1/25</u>	<u>8:53</u>	<u>7</u>	Indfill-app1-voc-group	Indfil-app1-metals-6020	<u>05</u>
-001	MW-9	Aqueous	GRAB	<u>4/1/25</u>	<u>7:41</u>	<u>7</u>	Indfill-app1-voc-group	Indfil-app1-metals-6020	<u>06</u>
-001	MW-16	Aqueous	GRAB	<u>4/1/25</u>	<u>9:20</u>	<u>7</u>	Indfill-app1-voc-group	Indfil-app1-metals-6020	<u>07</u>

Relinquished By [Signature]

Date/Time 4/3/25

Relinquished By [Signature]

Date/Time 4/3/25 10:18

Received By

Date/Time

Received for Lab By [Signature]

Date/Time

Original - Lab Copy Yellow - Sampler Copy

Remarks:



600 Eas
Newton,
641-792



HLW Engineering
PM: Heather Murphy

Page 2 of

Printed: 3/24/2025 10:18:38A

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Page 44 of 45

SITE INFORMATION

Sampler: Todd Whipple

Project: Fayette Co. Landfill-New Regs
6040

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___

REPORT TO

Todd Whipple
HLW Engineering
204 West Broad St
Story City, IA 50248

INVOICE TO

Joan Swenka
Fayette County Landfill
10275 Kornhill Road
Fayette, IA 52142

LAB USE ONLY

Work Order 1150654

Temperature 0.2

Turn-Cooler: No

☐ Custody Seal
☒ Containers Intact
☒ COC/Labels Agree
☐ Preservation Confirmed
☒ Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
-001	MW-24	Aqueous	GRAB	<u>4/1/25</u>	<u>8:41</u>	<u>7</u>	Indfill-appl-voc-group Indfil-appl-metals-6020	<u>08</u>
-001	MW-25	Aqueous	GRAB	<u>4/1/25</u>	<u>9:07</u>	<u>7</u>	Indfill-appl-voc-group Indfil-appl-metals-6020	<u>09</u>
-001	MW-26	Aqueous	GRAB	<u>4/1/25</u>	<u>9:33</u>	<u>7</u>	Indfill-appl-voc-group Indfil-appl-metals-6020	<u>10</u>
-001	MW-32	Aqueous	GRAB	<u>4/1/25</u>	<u>8:15</u>	<u>7</u>	Indfill-appl-voc-group Indfil-appl-metals-6020	<u>11</u>
-001	MW-33	Aqueous	GRAB	<u>4/1/25</u>	<u>8:03</u>	<u>7</u>	Indfill-appl-voc-group Indfil-appl-metals-6020	<u>12</u>
-001	ACM Tile 1	Aqueous	GRAB	<u>4/1/25</u>	<u>9:53</u>	<u>7</u>	as-t-6020 Indfill-appl-voc-group	<u>13</u>
-001	PECS-1	Aqueous	GRAB	<u>4/1/25</u>	<u>10:03</u>	<u>6</u>	Indfill-appl-voc-group	<u>14</u>

Todd Whipple 4/3/25
Relinquished By Date/Time

Received By Date/Time

Relinquished By Date/Time

Solomon 4/3/25 10:10
Received for Lab By Date/Time

Original - Lab Copy Yellow - Sampler Copy

Remarks:



600 East 17th
Newton, IA 50
641-792-8451

CHAIN OF CUSTODY RECORD



1 I D O 6 5 4

HLW Engineering
PM: Heather Murphy

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Printed: 3/24/2025 10:18:38A

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SITE INFORMATION

Sampler: Todd Whipple

Project: Fayette Co. Landfill-New Regs
6646

REPORT TO

Todd Whipple
HLW Engineering
204 West Broad St
Story City, IA 50248

INVOICE TO

Joan Swenka
Fayette County Landfill
10275 Kornhill Road
Fayette, IA 52142

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY

Work Order 17100654

Temperature 8.2

Turn-Cooler: No



Custody Seal
Containers Intact
COC/Labels Agree
Preservation Confirmed
Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
-001	Duplicate	Aqueous	GRAB	4/1/25	✓	1	~~Indfil-app1-metals-6020~~ indfil-app1-metals-6020	01 EE-15

Todd Whipple 4/3/25
Relinquished By Date/Time

Received By Date/Time

Relinquished By Date/Time

Shelby 4/3/25 10:18
Received for Lab By Date/Time

Original - Lab Copy Yellow - Sampler Copy

Remarks:



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IJ1387

Project Description

6040

For:

Todd Whipple

HLW Engineering

204 West Broad St

Story City, IA 50248

Heather Murphy

Customer Relationship Specialist

Friday, October 31, 2025

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac Laboratories, Inc., Newton. If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed above.

I certify that all test results meet all of the requirements of the accrediting authority listed within this report. Analytical results are reported on a 'as received' basis unless specified otherwise. Analytical results for solids with units ending in (dry) are reported on a dry weight basis. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

Microbac Laboratories, Inc.

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IJ1387

HLW Engineering

Todd Whipple
204 West Broad St
Story City, IA 50248

Project Name: 6040

Project / PO Number: N/A
Received: 10/15/2025
Reported: 10/31/2025

Sample Summary Report

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
MW-12	1IJ1387-01	Aqueous	GRAB		10/13/25 15:28	10/15/25 09:30
MW-21	1IJ1387-02	Aqueous	GRAB		10/13/25 15:45	10/15/25 09:30
MW-17	1IJ1387-03	Aqueous	GRAB		10/13/25 15:54	10/15/25 09:30
MW-5	1IJ1387-04	Aqueous	GRAB		10/13/25 13:00	10/15/25 09:30
MW-7	1IJ1387-05	Aqueous	GRAB		10/13/25 13:55	10/15/25 09:30
MW-9	1IJ1387-06	Aqueous	GRAB		10/13/25 17:58	10/15/25 09:30
MW-16	1IJ1387-07	Aqueous	GRAB		10/13/25 14:33	10/15/25 09:30
MW-24	1IJ1387-08	Aqueous	GRAB		10/13/25 17:30	10/15/25 09:30
MW-25	1IJ1387-09	Aqueous	GRAB		10/13/25 17:43	10/15/25 09:30
MW-26	1IJ1387-10	Aqueous	GRAB		10/13/25 14:50	10/15/25 09:30
MW-32	1IJ1387-11	Aqueous	GRAB		10/13/25 17:05	10/15/25 09:30
MW-33	1IJ1387-12	Aqueous	GRAB		10/13/25 16:50	10/15/25 09:30
Duplicate	1IJ1387-13	Aqueous	GRAB		10/13/25 00:00	10/15/25 09:30



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IJ1387

Analytical Testing Parameters

Client Sample ID: MW-12
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-01

Collected By: Whipple, Todd
Collection Date: 10/13/2025 15:28

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Vinyl Chloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Bromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Chloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Acetone	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Methyl Iodide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Carbon Disulfide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Methylene Chloride	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Acrylonitrile	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Vinyl Acetate	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Bromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Chloroform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Benzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Trichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Dibromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Bromodichloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Toluene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Dibromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Chlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Ethylbenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Xylenes, total	<2.0	2.0	ug/L		10/17/25 0000	10/17/25 1723	RAF

Microbac Laboratories, Inc., Newton

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-12
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-01

Collected By: Whipple, Todd
Collection Date: 10/13/2025 15:28

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Bromoform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1723	RAF
Surrogate: Dibromofluoromethane	92.9	Limit: 75-136	% Rec		10/17/25 0000	10/17/25 1723	RAF
Surrogate: Dibromofluoromethane	92.9	Limit: 57-128	% Rec		10/17/25 0000	10/17/25 1723	RAF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 49-135	% Rec		10/17/25 0000	10/17/25 1723	RAF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec		10/17/25 0000	10/17/25 1723	RAF
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec		10/17/25 0000	10/17/25 1723	RAF
Surrogate: Toluene-d8	102	Limit: 82-116	% Rec		10/17/25 0000	10/17/25 1723	RAF
Surrogate: 4-Bromofluorobenzene	102	Limit: 77-114	% Rec		10/17/25 0000	10/17/25 1723	RAF
Surrogate: 4-Bromofluorobenzene	102	Limit: 80-116	% Rec		10/17/25 0000	10/17/25 1723	RAF

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/15/25 1558	10/16/25 1830	RVV
Arsenic	<0.0020	0.0020	mg/L		10/15/25 1558	10/16/25 1830	RVV
Barium	0.105	0.0010	mg/L		10/15/25 1558	10/16/25 1830	RVV
Beryllium	<0.0005	0.0005	mg/L		10/15/25 1558	10/16/25 1830	RVV
Cadmium	<0.0002	0.0002	mg/L		10/15/25 1558	10/16/25 1830	RVV
Chromium	<0.0010	0.0010	mg/L		10/15/25 1558	10/16/25 1830	RVV
Cobalt	<0.0005	0.0005	mg/L		10/15/25 1558	10/16/25 1830	RVV
Copper	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1830	RVV
Lead	<0.0010	0.0010	mg/L		10/15/25 1558	10/16/25 1830	RVV
Nickel	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1830	RVV
Selenium	<0.0020	0.0020	mg/L		10/15/25 1558	10/16/25 1830	RVV
Silver	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1830	RVV
Thallium	<0.0005	0.0005	mg/L		10/15/25 1558	10/16/25 1830	RVV
Vanadium	<0.0020	0.0020	mg/L		10/15/25 1558	10/16/25 1830	RVV
Zinc	0.0069	0.0050	mg/L		10/15/25 1558	10/16/25 1830	RVV

Microbac Laboratories, Inc., Newton

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-21
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-02

Collected By: Whipple, Todd
Collection Date: 10/13/2025 15:45

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/15/25 1558	10/16/25 1833	RVV
Arsenic	<0.0020	0.0020	mg/L		10/15/25 1558	10/16/25 1833	RVV
Barium	0.0394	0.0010	mg/L		10/15/25 1558	10/16/25 1833	RVV
Beryllium	<0.0005	0.0005	mg/L		10/15/25 1558	10/16/25 1833	RVV
Cadmium	<0.0002	0.0002	mg/L		10/15/25 1558	10/16/25 1833	RVV
Chromium	<0.0010	0.0010	mg/L		10/15/25 1558	10/16/25 1833	RVV
Cobalt	0.0005	0.0005	mg/L		10/15/25 1558	10/16/25 1833	RVV
Copper	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1833	RVV
Lead	<0.0010	0.0010	mg/L		10/15/25 1558	10/16/25 1833	RVV
Nickel	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1833	RVV
Selenium	<0.0020	0.0020	mg/L		10/15/25 1558	10/16/25 1833	RVV
Silver	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1833	RVV
Thallium	<0.0005	0.0005	mg/L		10/15/25 1558	10/16/25 1833	RVV
Vanadium	<0.0020	0.0020	mg/L		10/15/25 1558	10/16/25 1833	RVV
Zinc	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1833	RVV

Microbac Laboratories, Inc., Newton

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-17
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-03

Collected By: Whipple, Todd
Collection Date: 10/13/2025 15:54

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Vinyl Chloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Bromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Chloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Acetone	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Methyl Iodide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Carbon Disulfide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Methylene Chloride	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Acrylonitrile	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Vinyl Acetate	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Bromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Chloroform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Benzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Trichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Dibromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Bromodichloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Toluene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Dibromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Chlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Ethylbenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Xylenes, total	<2.0	2.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Styrene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Bromoform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-17
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-03

Collected By: Whipple, Todd
Collection Date: 10/13/2025 15:54

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1746	RAF
Surrogate: Dibromofluoromethane	90.8	Limit: 75-136	% Rec		10/17/25 0000	10/17/25 1746	RAF
Surrogate: Dibromofluoromethane	90.8	Limit: 57-128	% Rec		10/17/25 0000	10/17/25 1746	RAF
Surrogate: 1,2-Dichloroethane-d4	113	Limit: 61-142	% Rec		10/17/25 0000	10/17/25 1746	RAF
Surrogate: 1,2-Dichloroethane-d4	113	Limit: 49-135	% Rec		10/17/25 0000	10/17/25 1746	RAF
Surrogate: Toluene-d8	104	Limit: 82-121	% Rec		10/17/25 0000	10/17/25 1746	RAF
Surrogate: Toluene-d8	104	Limit: 82-116	% Rec		10/17/25 0000	10/17/25 1746	RAF
Surrogate: 4-Bromofluorobenzene	98.0	Limit: 80-116	% Rec		10/17/25 0000	10/17/25 1746	RAF
Surrogate: 4-Bromofluorobenzene	98.0	Limit: 77-114	% Rec		10/17/25 0000	10/17/25 1746	RAF

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/15/25 1558	10/16/25 1835	RVV
Arsenic	<0.0020	0.0020	mg/L		10/15/25 1558	10/16/25 1835	RVV
Barium	0.108	0.0010	mg/L		10/15/25 1558	10/16/25 1835	RVV
Beryllium	<0.0005	0.0005	mg/L		10/15/25 1558	10/16/25 1835	RVV
Cadmium	<0.0002	0.0002	mg/L		10/15/25 1558	10/16/25 1835	RVV
Chromium	<0.0010	0.0010	mg/L		10/15/25 1558	10/16/25 1835	RVV
Cobalt	<0.0005	0.0005	mg/L		10/15/25 1558	10/16/25 1835	RVV
Copper	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1835	RVV
Lead	<0.0010	0.0010	mg/L		10/15/25 1558	10/16/25 1835	RVV
Nickel	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1835	RVV
Selenium	<0.0020	0.0020	mg/L		10/15/25 1558	10/16/25 1835	RVV
Silver	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1835	RVV
Thallium	<0.0005	0.0005	mg/L		10/15/25 1558	10/16/25 1835	RVV
Vanadium	<0.0020	0.0020	mg/L		10/15/25 1558	10/16/25 1835	RVV
Zinc	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1835	RVV

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-5
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-04

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:00

Analyses Performed by: Microbac Laboratories Inc., - Marietta, OH

Volatile Organic Compounds by GCMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA RSK-175							
Methane	3810	125	ug/L	D3		10/24/25 1639	KJB
Ethene	<5.00	5.00	ug/L			10/21/25 1724	KJB
Ethane	<5.00	5.00	ug/L			10/21/25 1724	KJB

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Dichlorodifluoromethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Chloromethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Vinyl Chloride	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Bromomethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Chloroethane	7.9	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Acrolein	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 1809	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Acetone	<10.0	10.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Methyl Iodide	<2.0	2.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Carbon Disulfide	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Acetonitrile	<10.0	10.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Methylene Chloride	<5.0	5.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Acrylonitrile	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1809	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,1-Dichloroethane	4.3	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Vinyl Acetate	<5.0	5.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
2,2-Dichloropropane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
cis-1,2-Dichloroethylene	2.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
2-Butanone (MEK)	<5.0	5.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Bromochloromethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Chloroform	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,1-Dichloropropene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Benzene	7.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Trichloroethylene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Dibromomethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Bromodichloromethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		10/24/25 0000	10/24/25 1107	RAF

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-5
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-04

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:00

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Toluene	2.2	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Ethyl Methacrylate	<10.0	10.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,3-Dichloropropane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Dibromochloromethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Chlorobenzene	1.6	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Ethylbenzene	2.6	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Xylenes, total	<2.0	2.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Styrene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Bromoform	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,3-Dichlorobenzene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,4-Dichlorobenzene	1.1	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1107	RAF
Allyl chloride	<1.0	1.0	ug/L		10/27/25 0000	10/27/25 1732	RAF
Chloroprene	<1.0	1.0	ug/L		10/27/25 0000	10/27/25 1732	RAF
Methacrylonitrile	<1.0	1.0	ug/L		10/27/25 0000	10/27/25 1732	RAF
Methyl Methacrylate	<1.0	1.0	ug/L		10/27/25 0000	10/27/25 1732	RAF
Propionitrile	<10.0	10.0	ug/L		10/27/25 0000	10/27/25 1732	RAF
Surrogate: Dibromofluoromethane	94.4	Limit: 57-128	% Rec		10/24/25 0000	10/24/25 1107	RAF
Surrogate: Dibromofluoromethane	102	Limit: 57-128	% Rec		10/27/25 0000	10/27/25 1732	RAF
Surrogate: 1,2-Dichloroethane-d4	113	Limit: 49-135	% Rec		10/27/25 0000	10/27/25 1732	RAF
Surrogate: 1,2-Dichloroethane-d4	114	Limit: 49-135	% Rec		10/24/25 0000	10/24/25 1107	RAF
Surrogate: 1,2-Dichloroethane-d4	113	Limit: 49-135	% Rec		10/17/25 0000	10/17/25 1809	RAF
Surrogate: Toluene-d8	102	Limit: 82-116	% Rec		10/24/25 0000	10/24/25 1107	RAF
Surrogate: Toluene-d8	105	Limit: 82-116	% Rec		10/27/25 0000	10/27/25 1732	RAF
Surrogate: Toluene-d8	102	Limit: 82-116	% Rec		10/17/25 0000	10/17/25 1809	RAF
Surrogate: 4-Bromofluorobenzene	101	Limit: 77-114	% Rec		10/27/25 0000	10/27/25 1732	RAF
Surrogate: 4-Bromofluorobenzene	101	Limit: 77-114	% Rec		10/24/25 0000	10/24/25 1107	RAF
Surrogate: 4-Bromofluorobenzene	103	Limit: 77-114	% Rec		10/17/25 0000	10/17/25 1809	RAF

Determination of General Solvents	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 8015C							
Isobutanol	<1.0	1.0	mg/L		10/24/25 1119	10/24/25 2127	PDS



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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-5
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-04

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:00

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 8270C							
N-Nitrosodimethylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Methyl Methanesulfonate	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
N-Nitrosodiethylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
N-Nitrosomethylethylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Ethyl Methanesulfonate	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Phenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Bis(2-Chloroethyl) Ether	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2-Chlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Benzyl Alcohol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2-Methylphenol (o-Cresol)	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Bis[2-Chloroisopropyl]ether	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
n-Nitroso-di-n-propylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
N-Nitrosopyrrolidine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Acetophenone	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
o-Toluidine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
(3 & 4)-Methylphenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Hexachloroethane	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Nitrobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
N-Nitrosopiperidine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Isophorone	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2-Nitrophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2,4-Dimethylphenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Bis (2-Chloroethoxy) Methane	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2,4-Dichlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Naphthalene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
4-Chloroaniline	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2,6-Dichlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Hexachloropropene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Hexachlorobutadiene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
N-Nitrosodi-n-butylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
1,4-Phenylenediamine	<8	8	ug/L	Q3	10/20/25 0941	10/29/25 1103	EPP
4-Chloro-3-methylphenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2-Methylnaphthalene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Isosafrole	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Hexachlorocyclopentadiene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2,4,6-Trichlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2,4,5-Trichlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Safrole	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2-Chloronaphthalene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2-Nitroaniline	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
1,4-Naphthoquinone	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-5
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-04

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:00

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Dimethylphthalate	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
1,3-Dinitrobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
1,2-Dinitrobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2,6-Dinitrotoluene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Acenaphthylene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
3-Nitroaniline	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Acenaphthene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2,4-Dinitrophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
4-Nitrophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Dibenzofuran	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2,4-Dinitrotoluene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2,3,4,6-Tetrachlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Pentachlorobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
1-Naphthylamine	<8	8	ug/L	Q3	10/20/25 0941	10/29/25 1103	EPP
2-Naphthylamine	<8	8	ug/L	Q3	10/20/25 0941	10/29/25 1103	EPP
Diethyl Phthalate	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Fluorene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
4-Chlorophenyl Phenyl Ether	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
4-Nitroaniline	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
5-Nitro-o-toluidine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
4,6-Dinitro-2-methylphenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
N-Nitrosodiphenylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Diphenylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Azobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Diallate	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
1,3,5-Trinitrobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Phenacetin	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
4-Bromophenyl Phenyl Ether	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
4-Aminobiphenyl	<8	8	ug/L	Q3	10/20/25 0941	10/29/25 1103	EPP
Pentachlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Pronamide	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Pentachloronitrobenzene (PCNB)	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Phenanthrene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Anthracene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Di-n-butyl Phthalate	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Methapyrilene	<8	8	ug/L	Q3	10/20/25 0941	10/29/25 1103	EPP
Fluoranthene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Isodrin	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Chlorobenzilate	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Pyrene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
p-(Dimethylamino)azobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
3,3-Dimethylbenzidine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Butyl Benzyl Phthalate	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-5
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-04

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:00

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Benzo(a)anthracene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Chrysene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L		10/20/25 0941	10/29/25 1103	EPP
Kepone	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
3,3'-Dichlorobenzidine	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
2-Acetylaminofluorene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Di-n-octyl Phthalate	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Benzo(b)Fluoranthene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Benzo(k)Fluoranthene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Benzo(a)Pyrene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
3-Methylcholanthrene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Dibenzo(a,h)anthracene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Benzo(g,h,i)perylene	<8	8	ug/L		10/20/25 0941	10/29/25 1103	EPP
Surrogate: 2-Fluorophenol	85.7	Limit: 10-159	% Rec		10/20/25 0941	10/29/25 1103	EPP
Surrogate: Phenol-d6	88.0	Limit: 10-162	% Rec		10/20/25 0941	10/29/25 1103	EPP
Surrogate: Nitrobenzene-d5	83.6	Limit: 17-154	% Rec		10/20/25 0941	10/29/25 1103	EPP
Surrogate: 2-Fluorobiphenyl	77.1	Limit: 15-150	% Rec		10/20/25 0941	10/29/25 1103	EPP
Surrogate: 2,4,6-Tribromophenol	87.6	Limit: 10-156	% Rec		10/20/25 0941	10/29/25 1103	EPP
Surrogate: Terphenyl-dl4	100	Limit: 10-179	% Rec		10/20/25 0941	10/29/25 1103	EPP

Determination of Organophosphorus Insecticides	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8141							
O,O,O-Triethyl phosphorothioate	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1151	EPP
Thionazin	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1151	EPP
Phorate	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1151	EPP
Dimethoate	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1151	EPP
Disulfoton	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1151	EPP
Methyl Parathion	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1151	EPP
Parathion	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1151	EPP
Famphur	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1151	EPP
Surrogate: 2-Nitro-m-xylene	64.1	Limit: 32-110	% Rec		10/17/25 1204	10/27/25 1151	EPP

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 8151A							
2,4-D	<2.0	2.0	ug/L		10/17/25 1211	10/27/25 1227	EPP
2,4,5-TP (Silvex)	<0.5	0.5	ug/L		10/17/25 1211	10/27/25 1227	EPP
2,4,5-T	<0.5	0.5	ug/L		10/17/25 1211	10/27/25 1227	EPP
Dinoseb	<0.5	0.5	ug/L		10/17/25 1211	10/27/25 1227	EPP
Surrogate: 2,5-Dichlorobenzoic Acid	73.8	Limit: 49-174	% Rec		10/17/25 1211	10/27/25 1227	EPP



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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-5
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-04

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:00

Determination of Organochlorine Insecticides & Metabolites

EPA 3510C/EPA 8081A

	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Alpha-BHC	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Gamma-BHC [Lindane]	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Beta-BHC	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Heptachlor	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Delta-BHC	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Aldrin	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Heptachlor Epoxide	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Endosulfan I	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
4,4'-DDE	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Dieldrin	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Endrin	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
4,4'-DDD	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Endosulfan II	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
4,4'-DDT	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Endrin Aldehyde	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Endosulfan Sulfate	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Methoxychlor	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Chlordane	<0.10	0.10	ug/L		10/17/25 1202	10/22/25 1702	PDS
Toxaphene	<0.20	0.20	ug/L		10/17/25 1202	10/22/25 1702	PDS
Hexachlorobenzene	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1702	PDS
Surrogate: Tetrachloro-m-xylene	174	Limit: 45-111	% Rec	S4	10/17/25 1202	10/22/25 1702	PDS

Determination of Polychlorinated Biphenyls (PCB)

EPA 3510C/EPA 8082A

	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Arochlor 1016	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1702	PDS
Arochlor 1221	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1702	PDS
Arochlor 1232	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1702	PDS
Arochlor 1242	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1702	PDS
Arochlor 1248	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1702	PDS
Arochlor 1254	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1702	PDS
Arochlor 1260	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1702	PDS
Surrogate: Tetrachloro-m-xylene	237	Limit: 50-116	% Rec	S4	10/17/25 1200	10/22/25 1702	PDS
Surrogate: Decachlorobiphenyl	97.2	Limit: 38-122	% Rec		10/17/25 1200	10/22/25 1702	PDS

Determination of Conventional Chemistry Parameters

EPA 376.2

Sulfide, total	0.35	0.10	mg/L		10/20/25 1039	10/20/25 1648	AKK

EPA 9014

Cyanide, total	<0.010	0.010	mg/L	M2		10/21/25 1307	AKK

SM 2320 B-2011

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-5
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-04

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:00

Determination of Conventional Chemistry Parameters	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Alkalinity, as CaCO ₃	658	50	mg/L			10/16/25 1312	BSS
SM 4500-H+ B-2011							
pH	6.3	0.5	pH	H4		10/21/25 1631	BSS
Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/15/25 1558	10/16/25 1838	RVV
Arsenic	0.0103	0.0020	mg/L		10/15/25 1558	10/16/25 1838	RVV
Barium	1.32	0.0010	mg/L		10/15/25 1558	10/16/25 1838	RVV
Beryllium	<0.0005	0.0005	mg/L		10/15/25 1558	10/16/25 1838	RVV
Cadmium	0.0005	0.0002	mg/L		10/15/25 1558	10/16/25 1838	RVV
Chromium	0.0010	0.0010	mg/L		10/15/25 1558	10/16/25 1838	RVV
Cobalt	0.0007	0.0005	mg/L		10/15/25 1558	10/16/25 1838	RVV
Copper	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1838	RVV
Lead	<0.0010	0.0010	mg/L		10/15/25 1558	10/16/25 1838	RVV
Nickel	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1838	RVV
Selenium	<0.0020	0.0020	mg/L		10/15/25 1558	10/16/25 1838	RVV
Silver	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1838	RVV
Thallium	<0.0005	0.0005	mg/L		10/15/25 1558	10/16/25 1838	RVV
Tin	<0.0050	0.0050	mg/L		10/15/25 1558	10/16/25 1838	RVV
Vanadium	0.0037	0.0020	mg/L		10/15/25 1558	10/16/25 1838	RVV
Zinc	0.0086	0.0050	mg/L		10/15/25 1558	10/16/25 1838	RVV
EPA 7470A							
Mercury	<0.00050	0.00050	mg/L		10/27/25 1536	10/28/25 1622	JAR

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-7
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-05

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:55

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Dichlorodifluoromethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Chloromethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Vinyl Chloride	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Bromomethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Chloroethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Acrolein	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 1832	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Acetone	<10.0	10.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Methyl Iodide	<2.0	2.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Carbon Disulfide	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Acetonitrile	<10.0	10.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Methylene Chloride	<5.0	5.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Acrylonitrile	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1832	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Vinyl Acetate	<5.0	5.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
2,2-Dichloropropane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
2-Butanone (MEK)	<5.0	5.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Bromochloromethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Chloroform	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,1-Dichloropropene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Benzene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Trichloroethylene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Dibromomethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Bromodichloromethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Toluene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Ethyl Methacrylate	<10.0	10.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,3-Dichloropropane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Dibromochloromethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-7
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-05

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:55

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2-Dibromoethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Chlorobenzene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Ethylbenzene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Xylenes, total	<2.0	2.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Styrene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Bromoform	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,3-Dichlorobenzene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L		10/24/25 0000	10/24/25 1130	RAF
Allyl chloride	<1.0	1.0	ug/L		10/27/25 0000	10/27/25 1755	RAF
Chloroprene	<1.0	1.0	ug/L		10/27/25 0000	10/27/25 1755	RAF
Methacrylonitrile	<1.0	1.0	ug/L		10/27/25 0000	10/27/25 1755	RAF
Methyl Methacrylate	<1.0	1.0	ug/L		10/27/25 0000	10/27/25 1755	RAF
Propionitrile	<10.0	10.0	ug/L		10/27/25 0000	10/27/25 1755	RAF
Surrogate: Dibromofluoromethane	92.6	Limit: 57-128	% Rec		10/24/25 0000	10/24/25 1130	RAF
Surrogate: Dibromofluoromethane	106	Limit: 57-128	% Rec		10/27/25 0000	10/27/25 1755	RAF
Surrogate: 1,2-Dichloroethane-d4	112	Limit: 49-135	% Rec		10/17/25 0000	10/17/25 1832	RAF
Surrogate: 1,2-Dichloroethane-d4	115	Limit: 49-135	% Rec		10/24/25 0000	10/24/25 1130	RAF
Surrogate: 1,2-Dichloroethane-d4	114	Limit: 49-135	% Rec		10/27/25 0000	10/27/25 1755	RAF
Surrogate: Toluene-d8	104	Limit: 82-116	% Rec		10/17/25 0000	10/17/25 1832	RAF
Surrogate: Toluene-d8	104	Limit: 82-116	% Rec		10/24/25 0000	10/24/25 1130	RAF
Surrogate: Toluene-d8	103	Limit: 82-116	% Rec		10/27/25 0000	10/27/25 1755	RAF
Surrogate: 4-Bromofluorobenzene	101	Limit: 77-114	% Rec		10/24/25 0000	10/24/25 1130	RAF
Surrogate: 4-Bromofluorobenzene	103	Limit: 77-114	% Rec		10/17/25 0000	10/17/25 1832	RAF
Surrogate: 4-Bromofluorobenzene	97.5	Limit: 77-114	% Rec		10/27/25 0000	10/27/25 1755	RAF

Determination of General Solvents	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 8015C							
Isobutanol	<1.0	1.0	mg/L		10/24/25 1119	10/24/25 2205	PDS

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 8270C							
N-Nitrosodimethylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Methyl Methanesulfonate	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
N-Nitrosodiethylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
N-Nitrosomethylethylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Ethyl Methanesulfonate	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-7
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-05

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:55

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Phenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Bis(2-Chloroethyl) Ether	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2-Chlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Benzyl Alcohol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2-Methylphenol (o-Cresol)	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Bis[2-Chloroisopropyl]ether	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
n-Nitroso-di-n-propylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
N-Nitrosopyrrolidine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Acetophenone	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
o-Toluidine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
(3 & 4)-Methylphenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Hexachloroethane	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Nitrobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
N-Nitrosopiperidine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Isophorone	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2-Nitrophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2,4-Dimethylphenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Bis (2-Chloroethoxy) Methane	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2,4-Dichlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Naphthalene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
4-Chloroaniline	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2,6-Dichlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Hexachloropropene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Hexachlorobutadiene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
N-Nitrosodi-n-butylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
1,4-Phenylenediamine	<8	8	ug/L	Q3	10/20/25 0941	10/29/25 1128	EPP
4-Chloro-3-methylphenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2-Methylnaphthalene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Isosafrole	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Hexachlorocyclopentadiene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2,4,6-Trichlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2,4,5-Trichlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Safrole	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2-Chloronaphthalene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2-Nitroaniline	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
1,4-Naphthoquinone	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Dimethylphthalate	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
1,3-Dinitrobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
1,2-Dinitrobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2,6-Dinitrotoluene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Acenaphthylene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
3-Nitroaniline	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-7
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-05

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:55

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Acenaphthene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2,4-Dinitrophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
4-Nitrophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Dibenzofuran	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2,4-Dinitrotoluene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2,3,4,6-Tetrachlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Pentachlorobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
1-Naphthylamine	<8	8	ug/L	Q3	10/20/25 0941	10/29/25 1128	EPP
2-Naphthylamine	<8	8	ug/L	Q3	10/20/25 0941	10/29/25 1128	EPP
Diethyl Phthalate	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Fluorene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
4-Chlorophenyl Phenyl Ether	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
4-Nitroaniline	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
5-Nitro-o-toluidine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
4,6-Dinitro-2-methylphenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
N-Nitrosodiphenylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Diphenylamine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Azobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Diallate	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
1,3,5-Trinitrobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Phenacetin	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
4-Bromophenyl Phenyl Ether	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
4-Aminobiphenyl	<8	8	ug/L	Q3	10/20/25 0941	10/29/25 1128	EPP
Pentachlorophenol	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Pronamide	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Pentachloronitrobenzene (PCNB)	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Phenanthrene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Anthracene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Di-n-butyl Phthalate	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Methapyrilene	<8	8	ug/L	Q3	10/20/25 0941	10/29/25 1128	EPP
Fluoranthene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Isodrin	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Chlorobenzilate	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Pyrene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
p-(Dimethylamino)azobenzene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
3,3-Dimethylbenzidine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Butyl Benzyl Phthalate	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Benzo(a)anthracene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Chrysene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L		10/20/25 0941	10/29/25 1128	EPP
Kepone	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
3,3'-Dichlorobenzidine	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
2-Acetylaminofluorene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-7
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-05

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:55

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Di-n-octyl Phthalate	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Benzo(b)Fluoranthene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Benzo(k)Fluoranthene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Benzo(a)Pyrene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
3-Methylcholanthrene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Dibenzo(a,h)anthracene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Benzo(g,h,i)perylene	<8	8	ug/L		10/20/25 0941	10/29/25 1128	EPP
Surrogate: 2-Fluorophenol	77.2	Limit: 10-159	% Rec		10/20/25 0941	10/29/25 1128	EPP
Surrogate: Phenol-d6	80.5	Limit: 10-162	% Rec		10/20/25 0941	10/29/25 1128	EPP
Surrogate: Nitrobenzene-d5	96.3	Limit: 17-154	% Rec		10/20/25 0941	10/29/25 1128	EPP
Surrogate: 2-Fluorobiphenyl	91.7	Limit: 15-150	% Rec		10/20/25 0941	10/29/25 1128	EPP
Surrogate: 2,4,6-Tribromophenol	57.5	Limit: 10-156	% Rec		10/20/25 0941	10/29/25 1128	EPP
Surrogate: Terphenyl-dl4	110	Limit: 10-179	% Rec		10/20/25 0941	10/29/25 1128	EPP

Determination of Organophosphorus Insecticides	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8141							
O,O,O-Triethyl phosphorothioate	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1235	EPP
Thionazin	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1235	EPP
Phorate	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1235	EPP
Dimethoate	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1235	EPP
Disulfoton	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1235	EPP
Methyl Parathion	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1235	EPP
Parathion	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1235	EPP
Famphur	<0.4	0.4	ug/L		10/17/25 1204	10/27/25 1235	EPP
Surrogate: 2-Nitro-m-xylene	63.5	Limit: 32-110	% Rec		10/17/25 1204	10/27/25 1235	EPP

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 8151A							
2,4-D	<2.0	2.0	ug/L		10/17/25 1211	10/27/25 1257	EPP
2,4,5-TP (Silvex)	<0.5	0.5	ug/L		10/17/25 1211	10/27/25 1257	EPP
2,4,5-T	<0.5	0.5	ug/L		10/17/25 1211	10/27/25 1257	EPP
Dinoseb	<0.5	0.5	ug/L		10/17/25 1211	10/27/25 1257	EPP
Surrogate: 2,5-Dichlorobenzoic Acid	107	Limit: 49-174	% Rec		10/17/25 1211	10/27/25 1257	EPP

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8081A							
Alpha-BHC	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Gamma-BHC [Lindane]	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-7
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-05

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:55

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Beta-BHC	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Heptachlor	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Delta-BHC	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Aldrin	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Heptachlor Epoxide	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Endosulfan I	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
4,4'-DDE	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Dieldrin	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Endrin	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
4,4'-DDD	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Endosulfan II	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
4,4'-DDT	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Endrin Aldehyde	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Endosulfan Sulfate	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Methoxychlor	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Chlordane	<0.10	0.10	ug/L		10/17/25 1202	10/22/25 1716	PDS
Toxaphene	<0.20	0.20	ug/L		10/17/25 1202	10/22/25 1716	PDS
Hexachlorobenzene	<0.05	0.05	ug/L		10/17/25 1202	10/22/25 1716	PDS
Surrogate: Tetrachloro-m-xylene	61.7	Limit: 45-111	% Rec		10/17/25 1202	10/22/25 1716	PDS

Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8082A							
Arochlor 1016	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1716	PDS
Arochlor 1221	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1716	PDS
Arochlor 1232	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1716	PDS
Arochlor 1242	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1716	PDS
Arochlor 1248	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1716	PDS
Arochlor 1254	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1716	PDS
Arochlor 1260	<0.20	0.20	ug/L		10/17/25 1200	10/22/25 1716	PDS
Surrogate: Tetrachloro-m-xylene	85.6	Limit: 50-116	% Rec		10/17/25 1200	10/22/25 1716	PDS
Surrogate: Decachlorobiphenyl	94.3	Limit: 38-122	% Rec		10/17/25 1200	10/22/25 1716	PDS

Determination of Conventional Chemistry Parameters	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 376.2							
Sulfide, total	<0.10	0.10	mg/L		10/20/25 1039	10/20/25 1648	AKK
EPA 9014							
Cyanide, total	<0.010	0.010	mg/L			10/21/25 1307	AKK

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1918	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-7
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-05

Collected By: Whipple, Todd
Collection Date: 10/13/2025 13:55

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Arsenic	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1918	RVV
Barium	0.0405	0.0010	mg/L		10/16/25 1520	10/17/25 1918	RVV
Beryllium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1918	RVV
Cadmium	0.0002	0.0002	mg/L		10/16/25 1520	10/17/25 1918	RVV
Chromium	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1918	RVV
Cobalt	0.0010	0.0005	mg/L		10/16/25 1520	10/17/25 1918	RVV
Copper	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1918	RVV
Lead	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1918	RVV
Nickel	0.0132	0.0050	mg/L		10/16/25 1520	10/17/25 1918	RVV
Selenium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1918	RVV
Silver	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1918	RVV
Thallium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1918	RVV
Tin	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1918	RVV
Vanadium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1918	RVV
Zinc	0.0232	0.0050	mg/L		10/16/25 1520	10/17/25 1918	RVV
EPA 7470A							
Mercury	<0.00050	0.00050	mg/L		10/27/25 1536	10/28/25 1624	JAR

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-9
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-06

Collected By: Whipple, Todd
Collection Date: 10/13/2025 17:58

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Vinyl Chloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Bromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Chloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Acetone	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Methyl Iodide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Carbon Disulfide	1.2	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Methylene Chloride	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Acrylonitrile	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Vinyl Acetate	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Bromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Chloroform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Benzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Trichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Dibromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Bromodichloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Toluene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Dibromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Chlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Ethylbenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Xylenes, total	<2.0	2.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Styrene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Bromoform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-9
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-06

Collected By: Whipple, Todd
Collection Date: 10/13/2025 17:58

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1854	RAF
Surrogate: Dibromofluoromethane	92.2	Limit: 75-136	% Rec		10/17/25 0000	10/17/25 1854	RAF
Surrogate: Dibromofluoromethane	92.2	Limit: 57-128	% Rec		10/17/25 0000	10/17/25 1854	RAF
Surrogate: 1,2-Dichloroethane-d4	112	Limit: 49-135	% Rec		10/17/25 0000	10/17/25 1854	RAF
Surrogate: 1,2-Dichloroethane-d4	112	Limit: 61-142	% Rec		10/17/25 0000	10/17/25 1854	RAF
Surrogate: Toluene-d8	103	Limit: 82-121	% Rec		10/17/25 0000	10/17/25 1854	RAF
Surrogate: Toluene-d8	103	Limit: 82-116	% Rec		10/17/25 0000	10/17/25 1854	RAF
Surrogate: 4-Bromofluorobenzene	99.7	Limit: 77-114	% Rec		10/17/25 0000	10/17/25 1854	RAF
Surrogate: 4-Bromofluorobenzene	99.7	Limit: 80-116	% Rec		10/17/25 0000	10/17/25 1854	RAF

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1933	RVV
Arsenic	0.0070	0.0020	mg/L		10/16/25 1520	10/17/25 1933	RVV
Barium	0.399	0.0010	mg/L		10/16/25 1520	10/17/25 1933	RVV
Beryllium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1933	RVV
Cadmium	<0.0002	0.0002	mg/L		10/16/25 1520	10/17/25 1933	RVV
Chromium	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1933	RVV
Cobalt	0.0011	0.0005	mg/L		10/16/25 1520	10/17/25 1933	RVV
Copper	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1933	RVV
Lead	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1933	RVV
Nickel	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1933	RVV
Selenium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1933	RVV
Silver	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1933	RVV
Thallium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1933	RVV
Vanadium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1933	RVV
Zinc	0.0100	0.0050	mg/L		10/16/25 1520	10/17/25 1933	RVV

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-16
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-07

Collected By: Whipple, Todd
Collection Date: 10/13/2025 14:33

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Vinyl Chloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Bromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Chloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Acetone	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Methyl Iodide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Carbon Disulfide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Methylene Chloride	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Acrylonitrile	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Vinyl Acetate	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Bromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Chloroform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Benzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Trichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Dibromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Bromodichloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Toluene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Dibromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Chlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Ethylbenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Xylenes, total	<2.0	2.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Styrene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Bromoform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-16
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-07

Collected By: Whipple, Todd
Collection Date: 10/13/2025 14:33

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1917	RAF
Surrogate: Dibromofluoromethane	94.4	Limit: 57-128	% Rec		10/17/25 0000	10/17/25 1917	RAF
Surrogate: Dibromofluoromethane	94.4	Limit: 75-136	% Rec		10/17/25 0000	10/17/25 1917	RAF
Surrogate: 1,2-Dichloroethane-d4	117	Limit: 49-135	% Rec		10/17/25 0000	10/17/25 1917	RAF
Surrogate: 1,2-Dichloroethane-d4	117	Limit: 61-142	% Rec		10/17/25 0000	10/17/25 1917	RAF
Surrogate: Toluene-d8	102	Limit: 82-116	% Rec		10/17/25 0000	10/17/25 1917	RAF
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec		10/17/25 0000	10/17/25 1917	RAF
Surrogate: 4-Bromofluorobenzene	99.9	Limit: 77-114	% Rec		10/17/25 0000	10/17/25 1917	RAF
Surrogate: 4-Bromofluorobenzene	99.9	Limit: 80-116	% Rec		10/17/25 0000	10/17/25 1917	RAF

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1936	RVV
Arsenic	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1936	RVV
Barium	0.162	0.0010	mg/L		10/16/25 1520	10/17/25 1936	RVV
Beryllium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1936	RVV
Cadmium	<0.0002	0.0002	mg/L		10/16/25 1520	10/17/25 1936	RVV
Chromium	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1936	RVV
Cobalt	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1936	RVV
Copper	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1936	RVV
Lead	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1936	RVV
Nickel	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1936	RVV
Selenium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1936	RVV
Silver	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1936	RVV
Thallium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1936	RVV
Vanadium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1936	RVV
Zinc	0.0077	0.0050	mg/L		10/16/25 1520	10/17/25 1936	RVV

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-24
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-08

Collected By: Whipple, Todd
Collection Date: 10/13/2025 17:30

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Vinyl Chloride	2.8	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Bromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Chloroethane	1.2	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Acetone	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Methyl Iodide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Carbon Disulfide	<1.0	1.0	ug/L		10/21/25 0000	10/21/25 1217	RAF
Methylene Chloride	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Acrylonitrile	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
1,1-Dichloroethane	1.4	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Vinyl Acetate	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Bromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Chloroform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Benzene	2.2	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Trichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Dibromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Bromodichloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Toluene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Dibromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Chlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Ethylbenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Xylenes, total	<2.0	2.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Styrene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Bromoform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-24
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-08

Collected By: Whipple, Todd
Collection Date: 10/13/2025 17:30

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 1940	RAF
Surrogate: Dibromofluoromethane	90.1	Limit: 75-136	% Rec		10/17/25 0000	10/17/25 1940	RAF
Surrogate: Dibromofluoromethane	90.1	Limit: 57-128	% Rec		10/17/25 0000	10/17/25 1940	RAF
Surrogate: Dibromofluoromethane	98.6	Limit: 75-136	% Rec		10/21/25 0000	10/21/25 1217	RAF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 49-135	% Rec		10/17/25 0000	10/17/25 1940	RAF
Surrogate: 1,2-Dichloroethane-d4	117	Limit: 61-142	% Rec		10/21/25 0000	10/21/25 1217	RAF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec		10/17/25 0000	10/17/25 1940	RAF
Surrogate: Toluene-d8	103	Limit: 82-121	% Rec		10/17/25 0000	10/17/25 1940	RAF
Surrogate: Toluene-d8	103	Limit: 82-116	% Rec		10/17/25 0000	10/17/25 1940	RAF
Surrogate: Toluene-d8	103	Limit: 82-121	% Rec		10/21/25 0000	10/21/25 1217	RAF
Surrogate: 4-Bromofluorobenzene	105	Limit: 77-114	% Rec		10/17/25 0000	10/17/25 1940	RAF
Surrogate: 4-Bromofluorobenzene	100	Limit: 80-116	% Rec		10/21/25 0000	10/21/25 1217	RAF
Surrogate: 4-Bromofluorobenzene	105	Limit: 80-116	% Rec		10/17/25 0000	10/17/25 1940	RAF

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1938	RVV
Arsenic	0.0185	0.0020	mg/L		10/16/25 1520	10/17/25 1938	RVV
Barium	0.614	0.0010	mg/L		10/16/25 1520	10/17/25 1938	RVV
Beryllium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1938	RVV
Cadmium	<0.0002	0.0002	mg/L		10/16/25 1520	10/17/25 1938	RVV
Chromium	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1938	RVV
Cobalt	0.0039	0.0005	mg/L		10/16/25 1520	10/17/25 1938	RVV
Copper	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1938	RVV
Lead	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1938	RVV
Nickel	0.0463	0.0050	mg/L		10/16/25 1520	10/17/25 1938	RVV
Selenium	<0.0020	0.0020	mg/L		10/16/25 1520	10/21/25 1533	RVV
Silver	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1938	RVV
Thallium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1938	RVV
Vanadium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1938	RVV
Zinc	0.0065	0.0050	mg/L		10/16/25 1520	10/17/25 1938	RVV

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-25
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-09

Collected By: Whipple, Todd
Collection Date: 10/13/2025 17:43

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Vinyl Chloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Bromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Chloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Acetone	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Methyl Iodide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Carbon Disulfide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Methylene Chloride	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Acrylonitrile	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Vinyl Acetate	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Bromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Chloroform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Benzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Trichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Dibromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Bromodichloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Toluene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Dibromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Chlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Ethylbenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Xylenes, total	<2.0	2.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Styrene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Bromoform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF

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1IJ1387

Client Sample ID: MW-25
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-09

Collected By: Whipple, Todd
Collection Date: 10/13/2025 17:43

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2003	RAF
Surrogate: Dibromofluoromethane	91.5	Limit: 75-136	% Rec		10/17/25 0000	10/17/25 2003	RAF
Surrogate: Dibromofluoromethane	91.5	Limit: 57-128	% Rec		10/17/25 0000	10/17/25 2003	RAF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 49-135	% Rec		10/17/25 0000	10/17/25 2003	RAF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec		10/17/25 0000	10/17/25 2003	RAF
Surrogate: Toluene-d8	104	Limit: 82-121	% Rec		10/17/25 0000	10/17/25 2003	RAF
Surrogate: Toluene-d8	104	Limit: 82-116	% Rec		10/17/25 0000	10/17/25 2003	RAF
Surrogate: 4-Bromofluorobenzene	102	Limit: 77-114	% Rec		10/17/25 0000	10/17/25 2003	RAF
Surrogate: 4-Bromofluorobenzene	102	Limit: 80-116	% Rec		10/17/25 0000	10/17/25 2003	RAF

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1941	RVV
Arsenic	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1941	RVV
Barium	0.0415	0.0010	mg/L		10/16/25 1520	10/17/25 1941	RVV
Beryllium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1941	RVV
Cadmium	<0.0002	0.0002	mg/L		10/16/25 1520	10/17/25 1941	RVV
Chromium	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1941	RVV
Cobalt	0.0006	0.0005	mg/L		10/16/25 1520	10/17/25 1941	RVV
Copper	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1941	RVV
Lead	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1941	RVV
Nickel	0.0060	0.0050	mg/L		10/16/25 1520	10/17/25 1941	RVV
Selenium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1941	RVV
Silver	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1941	RVV
Thallium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1941	RVV
Vanadium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1941	RVV
Zinc	0.0106	0.0050	mg/L		10/16/25 1520	10/17/25 1941	RVV

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-26
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-10

Collected By: Whipple, Todd
Collection Date: 10/13/2025 14:50

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Vinyl Chloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Bromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Chloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Acetone	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Methyl Iodide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Carbon Disulfide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Methylene Chloride	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Acrylonitrile	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Vinyl Acetate	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Bromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Chloroform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Benzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Trichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Dibromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Bromodichloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Toluene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Dibromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Chlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Ethylbenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Xylenes, total	<2.0	2.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Styrene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Bromoform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-26
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-10

Collected By: Whipple, Todd
Collection Date: 10/13/2025 14:50

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2026	RAF
Surrogate: Dibromofluoromethane	93.2	Limit: 75-136	% Rec		10/17/25 0000	10/17/25 2026	RAF
Surrogate: Dibromofluoromethane	93.2	Limit: 57-128	% Rec		10/17/25 0000	10/17/25 2026	RAF
Surrogate: 1,2-Dichloroethane-d4	114	Limit: 61-142	% Rec		10/17/25 0000	10/17/25 2026	RAF
Surrogate: 1,2-Dichloroethane-d4	114	Limit: 49-135	% Rec		10/17/25 0000	10/17/25 2026	RAF
Surrogate: Toluene-d8	103	Limit: 82-121	% Rec		10/17/25 0000	10/17/25 2026	RAF
Surrogate: Toluene-d8	103	Limit: 82-116	% Rec		10/17/25 0000	10/17/25 2026	RAF
Surrogate: 4-Bromofluorobenzene	101	Limit: 80-116	% Rec		10/17/25 0000	10/17/25 2026	RAF
Surrogate: 4-Bromofluorobenzene	101	Limit: 77-114	% Rec		10/17/25 0000	10/17/25 2026	RAF

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1943	RVV
Arsenic	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1943	RVV
Barium	0.0429	0.0010	mg/L		10/16/25 1520	10/17/25 1943	RVV
Beryllium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1943	RVV
Cadmium	<0.0002	0.0002	mg/L		10/16/25 1520	10/17/25 1943	RVV
Chromium	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1943	RVV
Cobalt	0.0073	0.0005	mg/L		10/16/25 1520	10/17/25 1943	RVV
Copper	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1943	RVV
Lead	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1943	RVV
Nickel	0.0079	0.0050	mg/L		10/16/25 1520	10/17/25 1943	RVV
Selenium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1943	RVV
Silver	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1943	RVV
Thallium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1943	RVV
Vanadium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1943	RVV
Zinc	0.0215	0.0050	mg/L		10/16/25 1520	10/17/25 1943	RVV

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-32
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-11

Collected By: Whipple, Todd
Collection Date: 10/13/2025 17:05

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Vinyl Chloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Bromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Chloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Acetone	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Methyl Iodide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Carbon Disulfide	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Methylene Chloride	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Acrylonitrile	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Vinyl Acetate	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Bromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Chloroform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Benzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Trichloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Dibromomethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Bromodichloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Toluene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Dibromochloromethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Chlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Ethylbenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Xylenes, total	<2.0	2.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Styrene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Bromoform	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-32
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-11

Collected By: Whipple, Todd
Collection Date: 10/13/2025 17:05

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		10/17/25 0000	10/17/25 2049	RAF
Surrogate: Dibromofluoromethane	93.4	Limit: 57-128	% Rec		10/17/25 0000	10/17/25 2049	RAF
Surrogate: Dibromofluoromethane	93.4	Limit: 75-136	% Rec		10/17/25 0000	10/17/25 2049	RAF
Surrogate: 1,2-Dichloroethane-d4	112	Limit: 49-135	% Rec		10/17/25 0000	10/17/25 2049	RAF
Surrogate: 1,2-Dichloroethane-d4	112	Limit: 61-142	% Rec		10/17/25 0000	10/17/25 2049	RAF
Surrogate: Toluene-d8	103	Limit: 82-116	% Rec		10/17/25 0000	10/17/25 2049	RAF
Surrogate: Toluene-d8	103	Limit: 82-121	% Rec		10/17/25 0000	10/17/25 2049	RAF
Surrogate: 4-Bromofluorobenzene	103	Limit: 77-114	% Rec		10/17/25 0000	10/17/25 2049	RAF
Surrogate: 4-Bromofluorobenzene	103	Limit: 80-116	% Rec		10/17/25 0000	10/17/25 2049	RAF

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1946	RVV
Arsenic	0.0038	0.0020	mg/L		10/16/25 1520	10/17/25 1946	RVV
Barium	0.305	0.0010	mg/L		10/16/25 1520	10/17/25 1946	RVV
Beryllium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1946	RVV
Cadmium	<0.0002	0.0002	mg/L		10/16/25 1520	10/17/25 1946	RVV
Chromium	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1946	RVV
Cobalt	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1946	RVV
Copper	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1946	RVV
Lead	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1946	RVV
Nickel	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1946	RVV
Selenium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1946	RVV
Silver	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1946	RVV
Thallium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1946	RVV
Vanadium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1946	RVV
Zinc	0.0052	0.0050	mg/L		10/16/25 1520	10/17/25 1946	RVV

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-33
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-12

Collected By: Whipple, Todd
Collection Date: 10/13/2025 16:50

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Vinyl Chloride	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Bromomethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Chloroethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Acetone	<10.0	10.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Methyl Iodide	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Carbon Disulfide	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Methylene Chloride	<5.0	5.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Acrylonitrile	<5.0	5.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Vinyl Acetate	<5.0	5.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Bromochloromethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Chloroform	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Benzene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Trichloroethylene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Dibromomethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Bromodichloromethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Toluene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Dibromochloromethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Chlorobenzene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Ethylbenzene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Xylenes, total	<2.0	2.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Styrene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Bromoform	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: MW-33
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-12

Collected By: Whipple, Todd
Collection Date: 10/13/2025 16:50

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		10/20/25 0000	10/20/25 1128	RAF
Surrogate: Dibromofluoromethane	94.7	Limit: 57-128	% Rec		10/20/25 0000	10/20/25 1128	RAF
Surrogate: Dibromofluoromethane	94.7	Limit: 75-136	% Rec		10/20/25 0000	10/20/25 1128	RAF
Surrogate: 1,2-Dichloroethane-d4	117	Limit: 49-135	% Rec		10/20/25 0000	10/20/25 1128	RAF
Surrogate: 1,2-Dichloroethane-d4	117	Limit: 61-142	% Rec		10/20/25 0000	10/20/25 1128	RAF
Surrogate: Toluene-d8	102	Limit: 82-116	% Rec		10/20/25 0000	10/20/25 1128	RAF
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec		10/20/25 0000	10/20/25 1128	RAF
Surrogate: 4-Bromofluorobenzene	103	Limit: 77-114	% Rec		10/20/25 0000	10/20/25 1128	RAF
Surrogate: 4-Bromofluorobenzene	103	Limit: 80-116	% Rec		10/20/25 0000	10/20/25 1128	RAF

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1948	RVV
Arsenic	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1948	RVV
Barium	0.243	0.0010	mg/L		10/16/25 1520	10/17/25 1948	RVV
Beryllium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1948	RVV
Cadmium	<0.0002	0.0002	mg/L		10/16/25 1520	10/17/25 1948	RVV
Chromium	0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1948	RVV
Cobalt	0.0035	0.0005	mg/L		10/16/25 1520	10/17/25 1948	RVV
Copper	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1948	RVV
Lead	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1948	RVV
Nickel	0.0076	0.0050	mg/L		10/16/25 1520	10/17/25 1948	RVV
Selenium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1948	RVV
Silver	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1948	RVV
Thallium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1948	RVV
Vanadium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1948	RVV
Zinc	0.0083	0.0050	mg/L		10/16/25 1520	10/17/25 1948	RVV

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CERTIFICATE OF ANALYSIS

1IJ1387

Client Sample ID: Duplicate
Sample Matrix: Aqueous
Lab Sample ID: 1IJ1387-13

Collected By: Whipple, Todd
Collection Date: 10/13/2025

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1951	RVV
Arsenic	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1951	RVV
Barium	0.115	0.0010	mg/L		10/16/25 1520	10/17/25 1951	RVV
Beryllium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1951	RVV
Cadmium	<0.0002	0.0002	mg/L		10/16/25 1520	10/17/25 1951	RVV
Chromium	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1951	RVV
Cobalt	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1951	RVV
Copper	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1951	RVV
Lead	<0.0010	0.0010	mg/L		10/16/25 1520	10/17/25 1951	RVV
Nickel	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1951	RVV
Selenium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1951	RVV
Silver	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1951	RVV
Thallium	<0.0005	0.0005	mg/L		10/16/25 1520	10/17/25 1951	RVV
Vanadium	<0.0020	0.0020	mg/L		10/16/25 1520	10/17/25 1951	RVV
Zinc	<0.0050	0.0050	mg/L		10/16/25 1520	10/17/25 1951	RVV

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CERTIFICATE OF ANALYSIS

1IJ1387

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1IJ0932	1IJ0932-BLK1	
		1IJ0932-BS1	
		1IJ0932-MS1	1IJ1317-01
		1IJ0932-MSD1	1IJ1317-01
		1IJ0932-PS1	1IJ1317-01
		1IJ1387-01	MW-12
		1IJ1387-02	MW-21
		1IJ1387-03	MW-17
		1IJ1387-04	MW-5
Method	Batch	Laboratory ID	Client / Source ID
SM 2320 B-2011	1IJ0999	1IJ0999-BLK1	
		1IJ1387-04	MW-5
		1IJ0999-BS1	
		1IJ0999-MS1	1IJ1422-04
		1IJ0999-MSD1	1IJ1422-04
Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1IJ1024	1IJ1024-BLK1	
		1IJ1024-BS1	
		1IJ1387-05	MW-7
		1IJ1024-MS1	1IJ1387-05
		1IJ1024-MSD1	1IJ1387-05
		1IJ1024-PS1	1IJ1387-05
		1IJ1387-06	MW-9
		1IJ1387-07	MW-16
		1IJ1387-08	MW-24
		1IJ1387-09	MW-25
		1IJ1387-10	MW-26
		1IJ1387-11	MW-32
		1IJ1387-12	MW-33
		1IJ1387-13	Duplicate
		1IJ1387-08RE1	MW-24
Method	Batch	Laboratory ID	Client / Source ID
EPA 8082A	1IJ1061	1IJ1061-BLK1	
		1IJ1387-04	MW-5
		1IJ1387-05	MW-7
		1IJ1061-BS1	
		1IJ1061-BSD1	
		1IJ1061-SRM1	
Method	Batch	Laboratory ID	Client / Source ID
EPA 8081A	1IJ1062	1IJ1062-BLK1	
		1IJ1387-04	MW-5
		1IJ1387-05	MW-7
		1IJ1062-BS1	
		1IJ1062-BSD1	
		1IJ1062-SRM1	
Method	Batch	Laboratory ID	Client / Source ID
EPA 8141	1IJ1063	1IJ1063-BLK1	
		1IJ1387-04	MW-5

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CERTIFICATE OF ANALYSIS

1IJ1387

Method	Batch	Laboratory ID	Client / Source ID
EPA 8141	1IJ1063	1IJ1387-05	MW-7
		1IJ1063-BS1	
		1IJ1063-BSD1	
		1IJ1063-SRM1	
Method	Batch	Laboratory ID	Client / Source ID
EPA 8151A	1IJ1064	1IJ1064-BLK1	MW-5 MW-7
		1IJ1387-04	
		1IJ1387-05	
		1IJ1064-BS1	
		1IJ1064-BSD1	
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1IJ1089	1IJ1089-BS1	MW-12 MW-17 MW-5 MW-7 MW-9 MW-16 MW-24 MW-25 MW-26 MW-32 1IJ1387-01 1IJ1387-01
		1IJ1089-BSD1	
		1IJ1089-BLK1	
		1IJ1387-01	
		1IJ1387-03	
		1IJ1387-04	
		1IJ1387-05	
		1IJ1387-06	
		1IJ1387-07	
		1IJ1387-08	
		1IJ1387-09	
		1IJ1387-10	
		1IJ1387-11	
		1IJ1089-MS1	
		1IJ1089-MSD1	
Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	1IJ1125	1IJ1125-BLK1	MW-5 MW-7
		1IJ1125-BS1	
		1IJ1125-BSD1	
		1IJ1387-04	
		1IJ1387-05	
Method	Batch	Laboratory ID	Client / Source ID
EPA 376.2	1IJ1132	1IJ1132-BS1	MW-7 1IJ1239-01 1IJ1239-01 MW-5
		1IJ1387-05	
		1IJ1132-MS1	
		1IJ1132-BLK1	
		1IJ1132-MSD1	
		1IJ1387-04	
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1IJ1171	1IJ1171-BS1	MW-33 1IJ1462-01 1IJ1462-01
		1IJ1171-BSD1	
		1IJ1171-BLK1	
		1IJ1387-12	
		1IJ1171-MS1	
		1IJ1171-MSD1	
Method	Batch	Laboratory ID	Client / Source ID
EPA 9014	1IJ1215	1IJ1387-05	MW-7
		1IJ1215-BLK1	
		1IJ1215-BS1	

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Method	Batch	Laboratory ID	Client / Source ID
EPA 9014	1IJ1215	1IJ1387-04	MW-5
		1IJ1215-MSD1	1IJ1387-04
		1IJ1215-MS1	1IJ1387-04
Method	Batch	Laboratory ID	Client / Source ID
SM 4500-H+ B-2011	1IJ1249	1IJ1249-SRM2	
		1IJ1249-SRM1	
		1IJ1387-04	MW-5
		1IJ1249-DUP1	1IJ1387-04
Method	Batch	Laboratory ID	Client / Source ID
EPA 8015C	1IJ1478	1IJ1478-BS1	
		1IJ1478-BLK1	
		1IJ1387-04	MW-5
		1IJ1387-05	MW-7
		1IJ1478-MS1	1IJ1904-01
		1IJ1478-MSD1	1IJ1904-01
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1IJ1499	1IJ1499-BLK1	
		1IJ1387-04	MW-5
		1IJ1387-05	MW-7
		1IJ1499-BS1	
		1IJ1499-BSD1	
		1IJ1499-MS1	1IJ1987-01
		1IJ1499-MSD1	1IJ1987-01
Method	Batch	Laboratory ID	Client / Source ID
EPA 7470A	1IJ1552	1IJ1552-BLK1	
		1IJ1552-BS1	
		1IJ1552-MS1	1IJ1317-01
		1IJ1552-MSD1	1IJ1317-01
		1IJ1387-04	MW-5
		1IJ1387-05	MW-7
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1IJ1564	1IJ1564-BS1	
		1IJ1564-BSD1	
		1IJ1564-BLK1	
		1IJ1387-04	MW-5
		1IJ1387-05	MW-7
		1IJ1564-MS1	1IJ1387-05
		1IJ1564-MSD1	1IJ1387-05
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1IJ1670	1IJ1670-BS1	
		1IJ1670-BSD1	
		1IJ1670-BLK1	
		1IJ1387-08RE1	MW-24
Method	Batch	Laboratory ID	Client / Source ID
EPA RSK-175	B5J1378	B5J1378-BLK1	
		1IJ1387-04	MW-5
		B5J1378-BS1	
		B5J1378-BSD1	
Method	Batch	Laboratory ID	Client / Source ID

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Method	Batch	Laboratory ID	Client / Source ID
EPA RSK-175	B5J1640	B5J1640-BLK1 B5J1640-BS1 1IJ1387-04RE1 B5J1640-BSD1	MW-5

Batch Quality Control Summary: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1089 - EPA 5030B - EPA 8260D										

Blank (1IJ1089-BLK1)

Prepared: 10/17/25 00:00 Analyzed: 10/17/25 13:12

Chloromethane	<1.0	1.0	ug/L
Vinyl Chloride	<1.0	1.0	ug/L
Bromomethane	<1.0	1.0	ug/L
Chloroethane	<1.0	1.0	ug/L
Trichlorofluoromethane	<1.0	1.0	ug/L
Acrolein	<10.0	10.0	ug/L
1,1-Dichloroethylene	<1.0	1.0	ug/L
Acetone	<10.0	10.0	ug/L
Methyl Iodide	<1.0	1.0	ug/L
Carbon Disulfide	<1.0	1.0	ug/L
Methylene Chloride	<5.0	5.0	ug/L
Acrylonitrile	<5.0	5.0	ug/L
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L
1,1-Dichloroethane	<1.0	1.0	ug/L
Vinyl Acetate	<5.0	5.0	ug/L
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L
2-Butanone (MEK)	<10.0	10.0	ug/L
Bromochloromethane	<1.0	1.0	ug/L
Chloroform	<1.0	1.0	ug/L
1,1,1-Trichloroethane	<1.0	1.0	ug/L
Carbon Tetrachloride	<1.0	1.0	ug/L
Benzene	<1.0	1.0	ug/L
1,2-Dichloroethane	<1.0	1.0	ug/L
Trichloroethylene	<1.0	1.0	ug/L
1,2-Dichloropropane	<1.0	1.0	ug/L
Dibromomethane	<1.0	1.0	ug/L
Bromodichloromethane	<1.0	1.0	ug/L
cis-1,3-Dichloropropene	<1.0	1.0	ug/L
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L
Toluene	<1.0	1.0	ug/L
trans-1,3-Dichloropropene	<1.0	1.0	ug/L
1,1,2-Trichloroethane	<1.0	1.0	ug/L
Tetrachloroethylene	<1.0	1.0	ug/L
2-Hexanone (MBK)	<5.0	5.0	ug/L
Dibromochloromethane	<1.0	1.0	ug/L

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1089 - EPA 5030B - EPA 8260D										
Blank (1IJ1089-BLK1)										
Prepared: 10/17/25 00:00 Analyzed: 10/17/25 13:12										
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
Surrogate: Dibromofluoromethane	45.6		ug/L	50.2		90.9	57-128			
Surrogate: Dibromofluoromethane	45.6		ug/L	50.2		90.9	75-136			
Surrogate: 1,2-Dichloroethane-d4	56.0		ug/L	50.4		111	61-142			
Surrogate: 1,2-Dichloroethane-d4	56.0		ug/L	50.4		111	49-135			
Surrogate: 1,2-Dichloroethane-d4	56.0		ug/L	50.4		111	49-135			
Surrogate: Toluene-d8	51.4		ug/L	50.5		102	82-116			
Surrogate: Toluene-d8	51.4		ug/L	50.5		102	82-116			
Surrogate: Toluene-d8	51.4		ug/L	50.5		102	82-121			
Surrogate: 4-Bromofluorobenzene	50.8		ug/L	50.2		101	80-116			
Surrogate: 4-Bromofluorobenzene	50.8		ug/L	50.2		101	77-114			
Surrogate: 4-Bromofluorobenzene	50.8		ug/L	50.2		101	77-114			
LCS (1IJ1089-BS1)										
Prepared: 10/17/25 00:00 Analyzed: 10/17/25 12:03										
Chloromethane	28.41	1.0	ug/L	30.3		93.7	63-155			
Vinyl Chloride	34.96	1.0	ug/L	30.2		116	70-154			
Bromomethane	25.63	1.0	ug/L	30.1		85.1	52-176			
Chloroethane	26.52	1.0	ug/L	30.3		87.5	72-148			
Trichlorofluoromethane	29.27	1.0	ug/L	30.3		96.6	70-152			
Acrolein	59.04	10.0	ug/L	50.3		117	10-178			
1,1-Dichloroethylene	57.16	1.0	ug/L	50.1		114	70-148			
Acetone	101.6	10.0	ug/L	100		102	43-172			
Methyl Iodide	101.0	1.0	ug/L	100		101	69-170			
Carbon Disulfide	96.49	1.0	ug/L	100		96.5	72-162			
Methylene Chloride	46.86	5.0	ug/L	50.1		93.5	68-142			
Acrylonitrile	62.58	5.0	ug/L	50.4		124	33-163			
Acrylonitrile	62.58	5.0	ug/L	50.4		124	33-163			
trans-1,2-Dichloroethylene	56.20	1.0	ug/L	50.1		112	66-148			
1,1-Dichloroethane	53.09	1.0	ug/L	50.1		106	66-143			
Vinyl Acetate	132.7	5.0	ug/L	142		93.1	43-153			
cis-1,2-Dichloroethylene	47.30	1.0	ug/L	50.4		93.9	71-149			
2-Butanone (MEK)	126.8	10.0	ug/L	100		127	52-159			

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1089 - EPA 5030B - EPA 8260D										
LCS (1IJ1089-BS1)										
Prepared: 10/17/25 00:00 Analyzed: 10/17/25 12:03										
Bromochloromethane	60.20	1.0	ug/L	50.4		119	69-143			
Chloroform	49.27	1.0	ug/L	50.1		98.4	69-144			
1,1,1-Trichloroethane	48.91	1.0	ug/L	50.1		97.6	62-129			
Carbon Tetrachloride	52.03	1.0	ug/L	50.1		104	63-141			
Benzene	51.16	1.0	ug/L	50.4		101	71-134			
1,2-Dichloroethane	63.09	1.0	ug/L	50.1		126	72-132			
Trichloroethylene	51.31	1.0	ug/L	50.1		102	71-135			
1,2-Dichloropropane	53.04	1.0	ug/L	50.1		106	69-136			
Dibromomethane	47.41	1.0	ug/L	50.4		94.1	73-147			
Bromodichloromethane	53.43	1.0	ug/L	50.1		107	68-129			
cis-1,3-Dichloropropene	44.33	1.0	ug/L	50.1		88.5	65-134			
4-Methyl-2-pentanone (MIBK)	127.9	5.0	ug/L	100		128	58-147			
Toluene	50.36	1.0	ug/L	50.5		99.8	72-133			
trans-1,3-Dichloropropene	51.17	1.0	ug/L	50.1		102	67-130			
1,1,2-Trichloroethane	51.78	1.0	ug/L	50.1		103	69-135			
Tetrachloroethylene	48.50	1.0	ug/L	50.1		96.8	69-130			
2-Hexanone (MBK)	124.7	5.0	ug/L	100		125	55-144			
Dibromochloromethane	43.01	1.0	ug/L	50.1		85.9	73-127			
1,2-Dibromoethane	47.62	1.0	ug/L	50.2		94.8	67-132			
Chlorobenzene	47.21	1.0	ug/L	50.1		94.3	72-123			
1,1,1,2-Tetrachloroethane	45.26	1.0	ug/L	50.3		89.9	73-127			
Ethylbenzene	51.09	1.0	ug/L	50.2		102	71-127			
Xylenes, total	158.0	2.0	ug/L	151		105	74-127			
Styrene	48.86	1.0	ug/L	50.4		97.0	66-126			
Bromoform	48.36	1.0	ug/L	50.1		96.5	68-130			
1,2,3-Trichloropropane	50.53	1.0	ug/L	50.3		100	63-136			
trans-1,4-Dichloro-2-butene	107.8	5.0	ug/L	100		108	54-134			
1,1,2,2-Tetrachloroethane	49.83	1.0	ug/L	50.1		99.5	61-131			
1,4-Dichlorobenzene	46.72	1.0	ug/L	50.1		93.2	70-129			
1,2-Dichlorobenzene	45.73	1.0	ug/L	50.1		91.3	69-126			
1,2-Dibromo-3-chloropropane	43.19	5.0	ug/L	50.1		86.2	50-143			
Surrogate: Dibromofluoromethane	48.0		ug/L	50.2		95.6	57-128			
Surrogate: Dibromofluoromethane	48.0		ug/L	50.2		95.6	75-136			
Surrogate: 1,2-Dichloroethane-d4	58.5		ug/L	50.4		116	61-142			
Surrogate: 1,2-Dichloroethane-d4	58.5		ug/L	50.4		116	49-135			
Surrogate: 1,2-Dichloroethane-d4	58.5		ug/L	50.4		116	49-135			
Surrogate: Toluene-d8	51.6		ug/L	50.5		102	82-116			
Surrogate: Toluene-d8	51.6		ug/L	50.5		102	82-116			
Surrogate: Toluene-d8	51.6		ug/L	50.5		102	82-121			
Surrogate: 4-Bromofluorobenzene	57.2		ug/L	50.2		114	80-116			
Surrogate: 4-Bromofluorobenzene	57.2		ug/L	50.2		114	77-114			
Surrogate: 4-Bromofluorobenzene	57.2		ug/L	50.2		114	77-114			

LCS Dup (1IJ1089-BSD1)

Prepared: 10/17/25 00:00 Analyzed: 10/17/25 12:26



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CERTIFICATE OF ANALYSIS

1IJ1387

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1089 - EPA 5030B - EPA 8260D										
LCS Dup (1IJ1089-BSD1)				Prepared: 10/17/25 00:00 Analyzed: 10/17/25 12:26						
Chloromethane	28.02	1.0	ug/L	30.3		92.4	63-155	1.38	24	
Vinyl Chloride	34.90	1.0	ug/L	30.2		115	70-154	0.172	25	
Bromomethane	24.36	1.0	ug/L	30.1		80.9	52-176	5.08	27	
Chloroethane	25.37	1.0	ug/L	30.3		83.7	72-148	4.43	25	
Trichlorofluoromethane	28.82	1.0	ug/L	30.3		95.1	70-152	1.55	26	
Acrolein	61.44	10.0	ug/L	50.3		122	10-178	3.98	30	
1,1-Dichloroethylene	56.35	1.0	ug/L	50.1		112	70-148	1.43	24	
Acetone	124.5	10.0	ug/L	100		124	43-172	20.3	30	
Methyl Iodide	100.6	1.0	ug/L	100		101	69-170	0.407	30	
Carbon Disulfide	94.39	1.0	ug/L	100		94.4	72-162	2.20	24	
Methylene Chloride	45.33	5.0	ug/L	50.1		90.5	68-142	3.32	21	
Acrylonitrile	62.08	5.0	ug/L	50.4		123	33-163	0.802	28	
Acrylonitrile	62.08	5.0	ug/L	50.4		123	33-163	0.802	28	
trans-1,2-Dichloroethylene	55.24	1.0	ug/L	50.1		110	66-148	1.72	27	
1,1-Dichloroethane	53.26	1.0	ug/L	50.1		106	66-143	0.320	24	
Vinyl Acetate	140.3	5.0	ug/L	142		98.4	43-153	5.55	30	
cis-1,2-Dichloroethylene	45.93	1.0	ug/L	50.4		91.2	71-149	2.94	26	
2-Butanone (MEK)	123.4	10.0	ug/L	100		123	52-159	2.69	27	
Bromochloromethane	57.70	1.0	ug/L	50.4		114	69-143	4.24	23	
Chloroform	47.05	1.0	ug/L	50.1		93.9	69-144	4.61	23	
1,1,1-Trichloroethane	48.43	1.0	ug/L	50.1		96.6	62-129	0.986	24	
Carbon Tetrachloride	51.29	1.0	ug/L	50.1		102	63-141	1.43	25	
Benzene	50.96	1.0	ug/L	50.4		101	71-134	0.392	24	
1,2-Dichloroethane	60.80	1.0	ug/L	50.1		121	72-132	3.70	24	
Trichloroethylene	51.51	1.0	ug/L	50.1		103	71-135	0.389	24	
1,2-Dichloropropane	53.76	1.0	ug/L	50.1		107	69-136	1.35	24	
Dibromomethane	44.94	1.0	ug/L	50.4		89.2	73-147	5.35	25	
Bromodichloromethane	52.61	1.0	ug/L	50.1		105	68-129	1.55	22	
cis-1,3-Dichloropropene	43.28	1.0	ug/L	50.1		86.4	65-134	2.40	23	
4-Methyl-2-pentanone (MIBK)	126.3	5.0	ug/L	100		126	58-147	1.29	27	
Toluene	50.45	1.0	ug/L	50.5		100	72-133	0.179	24	
trans-1,3-Dichloropropene	50.68	1.0	ug/L	50.1		101	67-130	0.962	24	
1,1,2-Trichloroethane	49.93	1.0	ug/L	50.1		99.7	69-135	3.64	23	
Tetrachloroethylene	47.77	1.0	ug/L	50.1		95.4	69-130	1.52	25	
2-Hexanone (MBK)	120.6	5.0	ug/L	100		121	55-144	3.33	25	
Dibromochloromethane	41.69	1.0	ug/L	50.1		83.3	73-127	3.12	22	
1,2-Dibromoethane	46.84	1.0	ug/L	50.2		93.3	67-132	1.65	24	
Chlorobenzene	46.60	1.0	ug/L	50.1		93.0	72-123	1.30	23	
1,1,1,2-Tetrachloroethane	46.00	1.0	ug/L	50.3		91.4	73-127	1.62	24	
Ethylbenzene	50.74	1.0	ug/L	50.2		101	71-127	0.687	26	
Xylenes, total	158.0	2.0	ug/L	151		105	74-127	0.0127	25	
Styrene	49.47	1.0	ug/L	50.4		98.2	66-126	1.24	23	
Bromoform	46.39	1.0	ug/L	50.1		92.6	68-130	4.16	23	

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CERTIFICATE OF ANALYSIS

11J1387

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11J1089 - EPA 5030B - EPA 8260D										
LCS Dup (11J1089-BSD1)				Prepared: 10/17/25 00:00 Analyzed: 10/17/25 12:26						
1,2,3-Trichloropropane	47.69	1.0	ug/L	50.3		94.7	63-136	5.78	24	
trans-1,4-Dichloro-2-butene	106.7	5.0	ug/L	100		107	54-134	1.02	27	
1,1,2,2-Tetrachloroethane	49.13	1.0	ug/L	50.1		98.1	61-131	1.41	29	
1,4-Dichlorobenzene	47.78	1.0	ug/L	50.1		95.3	70-129	2.24	24	
1,2-Dichlorobenzene	46.80	1.0	ug/L	50.1		93.4	69-126	2.31	26	
1,2-Dibromo-3-chloropropane	41.91	5.0	ug/L	50.1		83.6	50-143	3.01	30	
Surrogate: Dibromofluoromethane	46.1		ug/L	50.2		91.8	57-128			
Surrogate: Dibromofluoromethane	46.1		ug/L	50.2		91.8	75-136			
Surrogate: 1,2-Dichloroethane-d4	55.6		ug/L	50.4		110	61-142			
Surrogate: 1,2-Dichloroethane-d4	55.6		ug/L	50.4		110	49-135			
Surrogate: 1,2-Dichloroethane-d4	55.6		ug/L	50.4		110	49-135			
Surrogate: Toluene-d8	51.7		ug/L	50.5		102	82-116			
Surrogate: Toluene-d8	51.7		ug/L	50.5		102	82-116			
Surrogate: Toluene-d8	51.7		ug/L	50.5		102	82-121			
Surrogate: 4-Bromofluorobenzene	56.4		ug/L	50.2		112	80-116			
Surrogate: 4-Bromofluorobenzene	56.4		ug/L	50.2		112	77-114			
Surrogate: 4-Bromofluorobenzene	56.4		ug/L	50.2		112	77-114			
Matrix Spike (11J1089-MS1)				Source: 11J1387-01		Prepared: 10/17/25 00:00 Analyzed: 10/17/25 21:11				
Chloromethane	292.9	10.0	ug/L	303	ND	96.6	61-152			
Vinyl Chloride	574.9	10.0	ug/L	302	ND	190	66-149			M1
Bromomethane	248.8	10.0	ug/L	301	ND	82.6	43-171			
Chloroethane	295.9	10.0	ug/L	303	ND	97.6	69-148			
Trichlorofluoromethane	317.9	10.0	ug/L	303	ND	105	62-163			
Acrolein	682.6	100	ug/L	503	ND	136	10-170			
1,1-Dichloroethylene	623.7	10.0	ug/L	501	ND	124	70-148			
Acetone	1416	100	ug/L	1000	ND	142	45-173			
Methyl Iodide	1100	10.0	ug/L	1000	ND	110	62-167			
Carbon Disulfide	1051	10.0	ug/L	1000	ND	105	71-163			
Methylene Chloride	484.4	50.0	ug/L	501	ND	96.7	69-140			
Acrylonitrile	634.9	50.0	ug/L	504	ND	126	32-159			
Acrylonitrile	634.9	50.0	ug/L	504	ND	126	32-159			
trans-1,2-Dichloroethylene	624.6	10.0	ug/L	501	ND	125	69-144			
1,1-Dichloroethane	595.0	10.0	ug/L	501	ND	119	70-138			
Vinyl Acetate	557.3	50.0	ug/L	1420	ND	39.1	58-142			M2
cis-1,2-Dichloroethylene	515.1	10.0	ug/L	504	ND	102	68-151			
2-Butanone (MEK)	1261	100	ug/L	1000	ND	126	50-160			
Bromochloromethane	636.1	10.0	ug/L	504	ND	126	65-143			
Chloroform	537.0	10.0	ug/L	501	ND	107	71-143			
1,1,1-Trichloroethane	539.0	10.0	ug/L	501	ND	108	63-133			
Carbon Tetrachloride	552.4	10.0	ug/L	501	ND	110	63-142			
Benzene	572.0	10.0	ug/L	504	ND	113	69-133			
1,2-Dichloroethane	640.8	10.0	ug/L	501	ND	128	63-138			
Trichloroethylene	578.1	10.0	ug/L	501	ND	115	71-133			

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CERTIFICATE OF ANALYSIS

11J1387

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11J1089 - EPA 5030B - EPA 8260D										
Matrix Spike (11J1089-MS1)	Source: 11J1387-01			Prepared: 10/17/25 00:00 Analyzed: 10/17/25 21:11						
1,2-Dichloropropane	590.2	10.0	ug/L	501	ND	118	69-132			
Dibromomethane	493.7	10.0	ug/L	504	ND	98.0	70-147			
Bromodichloromethane	568.7	10.0	ug/L	501	ND	114	67-130			
cis-1,3-Dichloropropene	464.6	10.0	ug/L	501	ND	92.8	61-126			
4-Methyl-2-pentanone (MIBK)	1336	50.0	ug/L	1000	ND	134	55-147			
Toluene	569.5	10.0	ug/L	505	ND	113	71-133			
trans-1,3-Dichloropropene	543.5	10.0	ug/L	501	ND	109	63-124			
1,1,2-Trichloroethane	558.1	10.0	ug/L	501	ND	111	69-133			
Tetrachloroethylene	532.7	10.0	ug/L	501	ND	106	70-124			
2-Hexanone (MBK)	1286	50.0	ug/L	1000	ND	129	53-141			
Dibromochloromethane	453.1	10.0	ug/L	501	ND	90.5	74-122			
1,2-Dibromoethane	512.4	10.0	ug/L	502	ND	102	66-127			
Chlorobenzene	522.3	10.0	ug/L	501	ND	104	76-116			
1,1,1,2-Tetrachloroethane	490.1	10.0	ug/L	503	ND	97.3	77-121			
Ethylbenzene	562.3	10.0	ug/L	502	ND	112	73-124			
Xylenes, total	1744	20.0	ug/L	1510	ND	115	75-123			
Styrene	549.8	10.0	ug/L	504	ND	109	70-120			
Bromoform	502.6	10.0	ug/L	501	ND	100	70-124			
1,2,3-Trichloropropane	560.7	10.0	ug/L	503	ND	111	62-135			
trans-1,4-Dichloro-2-butene	1118	50.0	ug/L	1000	ND	112	50-120			
1,1,2,2-Tetrachloroethane	547.1	10.0	ug/L	501	ND	109	63-126			
1,4-Dichlorobenzene	530.9	10.0	ug/L	501	ND	106	72-119			
1,2-Dichlorobenzene	514.9	10.0	ug/L	501	ND	103	71-117			
1,2-Dibromo-3-chloropropane	463.6	50.0	ug/L	501	ND	92.5	49-134			
Surrogate: Dibromofluoromethane	481		ug/L	502		95.8	57-128			
Surrogate: Dibromofluoromethane	481		ug/L	502		95.8	75-136			
Surrogate: 1,2-Dichloroethane-d4	569		ug/L	504		113	61-142			
Surrogate: 1,2-Dichloroethane-d4	569		ug/L	504		113	49-135			
Surrogate: 1,2-Dichloroethane-d4	569		ug/L	504		113	49-135			
Surrogate: Toluene-d8	520		ug/L	505		103	82-116			
Surrogate: Toluene-d8	520		ug/L	505		103	82-116			
Surrogate: Toluene-d8	520		ug/L	505		103	82-121			
Surrogate: 4-Bromofluorobenzene	564		ug/L	502		112	80-116			
Surrogate: 4-Bromofluorobenzene	564		ug/L	502		112	77-114			
Surrogate: 4-Bromofluorobenzene	564		ug/L	502		112	77-114			
Matrix Spike Dup (11J1089-MSD1)	Source: 11J1387-01			Prepared: 10/17/25 00:00 Analyzed: 10/17/25 21:34						
Chloromethane	293.2	10.0	ug/L	303	ND	96.7	61-152	0.102	26	
Vinyl Chloride	556.5	10.0	ug/L	302	ND	184	66-149	3.25	23	M1
Bromomethane	238.3	10.0	ug/L	301	ND	79.1	43-171	4.31	29	
Chloroethane	280.8	10.0	ug/L	303	ND	92.6	69-148	5.24	25	
Trichlorofluoromethane	310.2	10.0	ug/L	303	ND	102	62-163	2.45	25	
Acrolein	679.6	100	ug/L	503	ND	135	10-170	0.440	30	
1,1-Dichloroethylene	604.4	10.0	ug/L	501	ND	121	70-148	3.14	22	

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CERTIFICATE OF ANALYSIS

1IJ1387

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1089 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (1IJ1089-MSD1) Source: 1IJ1387-01 Prepared: 10/17/25 00:00 Analyzed: 10/17/25 21:34										
Acetone	1352	100	ug/L	1000	ND	135	45-173	4.66	30	
Methyl Iodide	1097	10.0	ug/L	1000	ND	110	62-167	0.237	24	
Carbon Disulfide	1019	10.0	ug/L	1000	ND	102	71-163	3.15	22	
Methylene Chloride	474.4	50.0	ug/L	501	ND	94.7	69-140	2.09	19	
Acrylonitrile	619.5	50.0	ug/L	504	ND	123	32-159	2.46	30	
Acrylonitrile	619.5	50.0	ug/L	504	ND	123	32-159	2.46	30	
trans-1,2-Dichloroethylene	605.9	10.0	ug/L	501	ND	121	69-144	3.04	22	
1,1-Dichloroethane	567.7	10.0	ug/L	501	ND	113	70-138	4.70	20	
Vinyl Acetate	561.2	50.0	ug/L	1420	ND	39.4	58-142	0.697	24	M2
cis-1,2-Dichloroethylene	489.5	10.0	ug/L	504	ND	97.2	68-151	5.10	22	
2-Butanone (MEK)	1250	100	ug/L	1000	ND	125	50-160	0.820	23	
Bromochloromethane	610.0	10.0	ug/L	504	ND	121	65-143	4.19	22	
Chloroform	515.8	10.0	ug/L	501	ND	103	71-143	4.03	21	
1,1,1-Trichloroethane	532.3	10.0	ug/L	501	ND	106	63-133	1.25	23	
Carbon Tetrachloride	535.8	10.0	ug/L	501	ND	107	63-142	3.05	22	
Benzene	533.4	10.0	ug/L	504	ND	106	69-133	6.98	18	
1,2-Dichloroethane	615.9	10.0	ug/L	501	ND	123	63-138	3.96	20	
Trichloroethylene	539.6	10.0	ug/L	501	ND	108	71-133	6.89	23	
1,2-Dichloropropane	545.6	10.0	ug/L	501	ND	109	69-132	7.85	20	
Dibromomethane	463.9	10.0	ug/L	504	ND	92.1	70-147	6.22	22	
Bromodichloromethane	536.5	10.0	ug/L	501	ND	107	67-130	5.83	21	
cis-1,3-Dichloropropene	441.5	10.0	ug/L	501	ND	88.2	61-126	5.10	21	
4-Methyl-2-pentanone (MIBK)	1276	50.0	ug/L	1000	ND	128	55-147	4.62	23	
Toluene	530.2	10.0	ug/L	505	ND	105	71-133	7.15	19	
trans-1,3-Dichloropropene	522.0	10.0	ug/L	501	ND	104	63-124	4.04	21	
1,1,2-Trichloroethane	533.8	10.0	ug/L	501	ND	107	69-133	4.45	19	
Tetrachloroethylene	501.1	10.0	ug/L	501	ND	100	70-124	6.11	24	
2-Hexanone (MBK)	1280	50.0	ug/L	1000	ND	128	53-141	0.421	24	
Dibromochloromethane	435.4	10.0	ug/L	501	ND	87.0	74-122	3.98	21	
1,2-Dibromoethane	487.1	10.0	ug/L	502	ND	97.0	66-127	5.06	23	
Chlorobenzene	488.4	10.0	ug/L	501	ND	97.5	76-116	6.71	21	
1,1,1,2-Tetrachloroethane	479.0	10.0	ug/L	503	ND	95.1	77-121	2.29	25	
Ethylbenzene	531.1	10.0	ug/L	502	ND	106	73-124	5.71	20	
Xylenes, total	1638	20.0	ug/L	1510	ND	108	75-123	6.24	20	
Styrene	516.8	10.0	ug/L	504	ND	103	70-120	6.19	23	
Bromoform	480.0	10.0	ug/L	501	ND	95.8	70-124	4.60	22	
1,2,3-Trichloropropane	515.2	10.0	ug/L	503	ND	102	62-135	8.46	28	
trans-1,4-Dichloro-2-butene	1077	50.0	ug/L	1000	ND	108	50-120	3.78	26	
1,1,2,2-Tetrachloroethane	515.2	10.0	ug/L	501	ND	103	63-126	6.01	24	
1,4-Dichlorobenzene	501.9	10.0	ug/L	501	ND	100	72-119	5.62	24	
1,2-Dichlorobenzene	484.6	10.0	ug/L	501	ND	96.7	71-117	6.06	24	
1,2-Dibromo-3-chloropropane	451.5	50.0	ug/L	501	ND	90.1	49-134	2.64	28	

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CERTIFICATE OF ANALYSIS

1IJ1387

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1089 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (1IJ1089-MSD1)		Source: 1IJ1387-01		Prepared: 10/17/25 00:00 Analyzed: 10/17/25 21:34						
Surrogate: Dibromofluoromethane	478		ug/L	502		95.2	57-128			
Surrogate: Dibromofluoromethane	478		ug/L	502		95.2	75-136			
Surrogate: 1,2-Dichloroethane-d4	581		ug/L	504		115	61-142			
Surrogate: 1,2-Dichloroethane-d4	581		ug/L	504		115	49-135			
Surrogate: 1,2-Dichloroethane-d4	581		ug/L	504		115	49-135			
Surrogate: Toluene-d8	509		ug/L	505		101	82-116			
Surrogate: Toluene-d8	509		ug/L	505		101	82-116			
Surrogate: Toluene-d8	509		ug/L	505		101	82-121			
Surrogate: 4-Bromofluorobenzene	556		ug/L	502		111	80-116			
Surrogate: 4-Bromofluorobenzene	556		ug/L	502		111	77-114			
Surrogate: 4-Bromofluorobenzene	556		ug/L	502		111	77-114			

Batch 1IJ1171 - EPA 5030B - EPA 8260D

Blank (1IJ1171-BLK1)		Prepared: 10/20/25 00:00 Analyzed: 10/20/25 11:05								
Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							
Trichlorofluoromethane	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<1.0	1.0	ug/L							
Carbon Disulfide	<1.0	1.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
Acrylonitrile	<5.0	5.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
Vinyl Acetate	<5.0	5.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
Toluene	<1.0	1.0	ug/L							

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CERTIFICATE OF ANALYSIS

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1171 - EPA 5030B - EPA 8260D										
Blank (1IJ1171-BLK1)				Prepared: 10/20/25 00:00 Analyzed: 10/20/25 11:05						
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
Surrogate: Dibromofluoromethane	47.7		ug/L	50.2		95.1	57-128			
Surrogate: Dibromofluoromethane	47.7		ug/L	50.2		95.1	75-136			
Surrogate: 1,2-Dichloroethane-d4	58.2		ug/L	50.4		116	61-142			
Surrogate: 1,2-Dichloroethane-d4	58.2		ug/L	50.4		116	49-135			
Surrogate: Toluene-d8	51.0		ug/L	50.5		101	82-116			
Surrogate: Toluene-d8	51.0		ug/L	50.5		101	82-121			
Surrogate: 4-Bromofluorobenzene	51.4		ug/L	50.2		102	80-116			
Surrogate: 4-Bromofluorobenzene	51.4		ug/L	50.2		102	77-114			
LCS (1IJ1171-BS1)				Prepared: 10/20/25 00:00 Analyzed: 10/20/25 09:56						
Chloromethane	27.64	1.0	ug/L	30.3		91.2	63-155			
Vinyl Chloride	31.30	1.0	ug/L	30.2		103	70-154			
Bromomethane	24.06	1.0	ug/L	30.1		79.9	52-176			
Chloroethane	26.47	1.0	ug/L	30.3		87.3	72-148			
Trichlorofluoromethane	30.53	1.0	ug/L	30.3		101	70-152			
1,1-Dichloroethylene	60.39	1.0	ug/L	50.1		120	70-148			
Acetone	116.4	10.0	ug/L	100		116	43-172			
Methyl Iodide	110.4	1.0	ug/L	100		110	69-170			
Carbon Disulfide	105.4	1.0	ug/L	100		105	72-162			
Methylene Chloride	48.67	5.0	ug/L	50.1		97.1	68-142			
Acrylonitrile	56.52	5.0	ug/L	50.4		112	33-163			
trans-1,2-Dichloroethylene	62.15	1.0	ug/L	50.1		124	66-148			
1,1-Dichloroethane	60.62	1.0	ug/L	50.1		121	66-143			
Vinyl Acetate	150.2	5.0	ug/L	142		105	43-153			
cis-1,2-Dichloroethylene	52.34	1.0	ug/L	50.4		104	71-149			
2-Butanone (MEK)	123.8	10.0	ug/L	100		124	52-159			

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CERTIFICATE OF ANALYSIS

1IJ1387

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1171 - EPA 5030B - EPA 8260D										
LCS (1IJ1171-BS1)										
Prepared: 10/20/25 00:00 Analyzed: 10/20/25 09:56										
Bromochloromethane	61.40	1.0	ug/L	50.4		122	69-143			
Chloroform	53.34	1.0	ug/L	50.1		107	69-144			
1,1,1-Trichloroethane	55.45	1.0	ug/L	50.1		111	62-129			
Carbon Tetrachloride	56.87	1.0	ug/L	50.1		114	63-141			
Benzene	56.47	1.0	ug/L	50.4		112	71-134			
1,2-Dichloroethane	64.01	1.0	ug/L	50.1		128	72-132			
Trichloroethylene	57.57	1.0	ug/L	50.1		115	71-135			
1,2-Dichloropropane	57.64	1.0	ug/L	50.1		115	69-136			
Dibromomethane	47.83	1.0	ug/L	50.4		95.0	73-147			
Bromodichloromethane	56.79	1.0	ug/L	50.1		113	68-129			
cis-1,3-Dichloropropene	47.10	1.0	ug/L	50.1		94.0	65-134			
4-Methyl-2-pentanone (MIBK)	124.0	5.0	ug/L	100		124	58-147			
Toluene	56.27	1.0	ug/L	50.5		111	72-133			
trans-1,3-Dichloropropene	55.07	1.0	ug/L	50.1		110	67-130			
1,1,2-Trichloroethane	54.61	1.0	ug/L	50.1		109	69-135			
Tetrachloroethylene	54.73	1.0	ug/L	50.1		109	69-130			
2-Hexanone (MBK)	124.4	5.0	ug/L	100		124	55-144			
Dibromochloromethane	45.14	1.0	ug/L	50.1		90.2	73-127			
1,2-Dibromoethane	50.90	1.0	ug/L	50.2		101	67-132			
Chlorobenzene	52.31	1.0	ug/L	50.1		104	72-123			
1,1,1,2-Tetrachloroethane	49.61	1.0	ug/L	50.3		98.5	73-127			
Ethylbenzene	56.16	1.0	ug/L	50.2		112	71-127			
Xylenes, total	174.7	2.0	ug/L	151		116	74-127			
Styrene	55.04	1.0	ug/L	50.4		109	66-126			
Bromoform	52.11	1.0	ug/L	50.1		104	68-130			
1,2,3-Trichloropropane	53.13	1.0	ug/L	50.3		106	63-136			
trans-1,4-Dichloro-2-butene	118.1	5.0	ug/L	100		118	54-134			
1,1,2,2-Tetrachloroethane	51.31	1.0	ug/L	50.1		102	61-131			
1,4-Dichlorobenzene	50.46	1.0	ug/L	50.1		101	70-129			
1,2-Dichlorobenzene	49.48	1.0	ug/L	50.1		98.8	69-126			
1,2-Dibromo-3-chloropropane	43.55	5.0	ug/L	50.1		86.9	50-143			
Surrogate: Dibromofluoromethane	47.0		ug/L	50.2		93.7	57-128			
Surrogate: Dibromofluoromethane	47.0		ug/L	50.2		93.7	75-136			
Surrogate: 1,2-Dichloroethane-d4	58.5		ug/L	50.4		116	61-142			
Surrogate: 1,2-Dichloroethane-d4	58.5		ug/L	50.4		116	49-135			
Surrogate: Toluene-d8	51.0		ug/L	50.5		101	82-116			
Surrogate: Toluene-d8	51.0		ug/L	50.5		101	82-121			
Surrogate: 4-Bromofluorobenzene	58.1		ug/L	50.2		116	80-116			
Surrogate: 4-Bromofluorobenzene	58.1		ug/L	50.2		116	77-114			S1
LCS Dup (1IJ1171-BS1)										
Prepared: 10/20/25 00:00 Analyzed: 10/20/25 10:19										
Chloromethane	26.59	1.0	ug/L	30.3		87.7	63-155	3.87	24	
Vinyl Chloride	34.52	1.0	ug/L	30.2		114	70-154	9.78	25	
Bromomethane	24.98	1.0	ug/L	30.1		82.9	52-176	3.75	27	

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1171 - EPA 5030B - EPA 8260D										
LCS Dup (1IJ1171-BSD1)										
Prepared: 10/20/25 00:00 Analyzed: 10/20/25 10:19										
Chloroethane	24.96	1.0	ug/L	30.3		82.3	72-148	5.87	25	
Trichlorofluoromethane	29.07	1.0	ug/L	30.3		95.9	70-152	4.90	26	
1,1-Dichloroethylene	59.52	1.0	ug/L	50.1		119	70-148	1.45	24	
Acetone	118.1	10.0	ug/L	100		118	43-172	1.44	30	
Methyl Iodide	109.4	1.0	ug/L	100		109	69-170	0.928	30	
Carbon Disulfide	101.4	1.0	ug/L	100		101	72-162	3.86	24	
Methylene Chloride	48.74	5.0	ug/L	50.1		97.3	68-142	0.144	21	
Acrylonitrile	58.58	5.0	ug/L	50.4		116	33-163	3.58	28	
trans-1,2-Dichloroethylene	61.19	1.0	ug/L	50.1		122	66-148	1.56	27	
1,1-Dichloroethane	59.18	1.0	ug/L	50.1		118	66-143	2.40	24	
Vinyl Acetate	149.6	5.0	ug/L	142		105	43-153	0.347	30	
cis-1,2-Dichloroethylene	51.29	1.0	ug/L	50.4		102	71-149	2.03	26	
2-Butanone (MEK)	125.6	10.0	ug/L	100		126	52-159	1.40	27	
Bromochloromethane	61.93	1.0	ug/L	50.4		123	69-143	0.859	23	
Chloroform	53.62	1.0	ug/L	50.1		107	69-144	0.524	23	
1,1,1-Trichloroethane	54.57	1.0	ug/L	50.1		109	62-129	1.60	24	
Carbon Tetrachloride	56.81	1.0	ug/L	50.1		113	63-141	0.106	25	
Benzene	55.83	1.0	ug/L	50.4		111	71-134	1.14	24	
1,2-Dichloroethane	64.74	1.0	ug/L	50.1		129	72-132	1.13	24	
Trichloroethylene	56.68	1.0	ug/L	50.1		113	71-135	1.56	24	
1,2-Dichloropropane	58.62	1.0	ug/L	50.1		117	69-136	1.69	24	
Dibromomethane	48.54	1.0	ug/L	50.4		96.4	73-147	1.47	25	
Bromodichloromethane	56.14	1.0	ug/L	50.1		112	68-129	1.15	22	
cis-1,3-Dichloropropene	47.83	1.0	ug/L	50.1		95.5	65-134	1.54	23	
4-Methyl-2-pentanone (MIBK)	126.9	5.0	ug/L	100		127	58-147	2.31	27	
Toluene	54.94	1.0	ug/L	50.5		109	72-133	2.39	24	
trans-1,3-Dichloropropene	55.65	1.0	ug/L	50.1		111	67-130	1.05	24	
1,1,2-Trichloroethane	54.91	1.0	ug/L	50.1		110	69-135	0.548	23	
Tetrachloroethylene	51.04	1.0	ug/L	50.1		102	69-130	6.98	25	
2-Hexanone (MBK)	122.8	5.0	ug/L	100		123	55-144	1.28	25	
Dibromochloromethane	45.22	1.0	ug/L	50.1		90.3	73-127	0.177	22	
1,2-Dibromoethane	49.24	1.0	ug/L	50.2		98.0	67-132	3.32	24	
Chlorobenzene	50.27	1.0	ug/L	50.1		100	72-123	3.98	23	
1,1,1,2-Tetrachloroethane	49.03	1.0	ug/L	50.3		97.4	73-127	1.18	24	
Ethylbenzene	54.97	1.0	ug/L	50.2		110	71-127	2.14	26	
Xylenes, total	168.7	2.0	ug/L	151		112	74-127	3.50	25	
Styrene	52.63	1.0	ug/L	50.4		104	66-126	4.48	23	
Bromoform	50.22	1.0	ug/L	50.1		100	68-130	3.69	23	
1,2,3-Trichloropropane	53.49	1.0	ug/L	50.3		106	63-136	0.675	24	
trans-1,4-Dichloro-2-butene	115.5	5.0	ug/L	100		116	54-134	2.23	27	
1,1,2,2-Tetrachloroethane	52.64	1.0	ug/L	50.1		105	61-131	2.56	29	
1,4-Dichlorobenzene	51.64	1.0	ug/L	50.1		103	70-129	2.31	24	
1,2-Dichlorobenzene	50.34	1.0	ug/L	50.1		100	69-126	1.72	26	

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CERTIFICATE OF ANALYSIS

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1171 - EPA 5030B - EPA 8260D										
LCS Dup (1IJ1171-BS1)				Prepared: 10/20/25 00:00 Analyzed: 10/20/25 10:19						
1,2-Dibromo-3-chloropropane	44.67	5.0	ug/L	50.1		89.1	50-143	2.54	30	
Surrogate: Dibromofluoromethane	47.9		ug/L	50.2		95.4	57-128			
Surrogate: Dibromofluoromethane	47.9		ug/L	50.2		95.4	75-136			
Surrogate: 1,2-Dichloroethane-d4	58.6		ug/L	50.4		116	61-142			
Surrogate: 1,2-Dichloroethane-d4	58.6		ug/L	50.4		116	49-135			
Surrogate: Toluene-d8	51.6		ug/L	50.5		102	82-116			
Surrogate: Toluene-d8	51.6		ug/L	50.5		102	82-121			
Surrogate: 4-Bromofluorobenzene	57.1		ug/L	50.2		114	80-116			
Surrogate: 4-Bromofluorobenzene	57.1		ug/L	50.2		114	77-114			
Matrix Spike (1IJ1171-MS1)				Source: 1IJ1462-01	Prepared: 10/20/25 00:00 Analyzed: 10/20/25 19:05					
Chloromethane	272.9	10.0	ug/L	303	ND	90.0	61-152			M1
Vinyl Chloride	531.5	10.0	ug/L	302	ND	176	66-149			
Bromomethane	247.2	10.0	ug/L	301	ND	82.1	43-171			
Chloroethane	284.5	10.0	ug/L	303	ND	93.8	69-148			
Trichlorofluoromethane	318.7	10.0	ug/L	303	ND	105	62-163			
1,1-Dichloroethylene	633.3	10.0	ug/L	501	ND	126	70-148			
Acetone	1527	100	ug/L	1000	ND	153	45-173			
Methyl Iodide	1025	10.0	ug/L	1000	ND	102	62-167			
Carbon Disulfide	1014	10.0	ug/L	1000	ND	101	71-163			
Methylene Chloride	493.8	50.0	ug/L	501	ND	98.6	69-140			
Acrylonitrile	614.3	50.0	ug/L	504	ND	122	32-159			
trans-1,2-Dichloroethylene	632.8	10.0	ug/L	501	ND	126	69-144			
1,1-Dichloroethane	628.5	10.0	ug/L	501	ND	125	70-138			
Vinyl Acetate	1571	50.0	ug/L	1420	ND	110	58-142			
cis-1,2-Dichloroethylene	535.9	10.0	ug/L	504	ND	106	68-151			
2-Butanone (MEK)	1369	100	ug/L	1000	ND	137	50-160			
Bromochloromethane	654.8	10.0	ug/L	504	ND	130	65-143			
Chloroform	553.2	10.0	ug/L	501	ND	110	71-143			
1,1,1-Trichloroethane	574.3	10.0	ug/L	501	ND	115	63-133			
Carbon Tetrachloride	569.7	10.0	ug/L	501	ND	114	63-142			
Benzene	561.6	10.0	ug/L	504	ND	111	69-133			
1,2-Dichloroethane	632.3	10.0	ug/L	501	ND	126	63-138			
Trichloroethylene	559.6	10.0	ug/L	501	ND	112	71-133			
1,2-Dichloropropane	575.5	10.0	ug/L	501	ND	115	69-132			
Dibromomethane	499.5	10.0	ug/L	504	ND	99.2	70-147			
Bromodichloromethane	560.5	10.0	ug/L	501	ND	112	67-130			
cis-1,3-Dichloropropene	459.9	10.0	ug/L	501	ND	91.8	61-126			
4-Methyl-2-pentanone (MIBK)	1259	50.0	ug/L	1000	ND	126	55-147			
Toluene	561.8	10.0	ug/L	505	ND	111	71-133			
trans-1,3-Dichloropropene	531.6	10.0	ug/L	501	ND	106	63-124			
1,1,2-Trichloroethane	542.6	10.0	ug/L	501	ND	108	69-133			
Tetrachloroethylene	521.3	10.0	ug/L	501	ND	104	70-124			
2-Hexanone (MBK)	1209	50.0	ug/L	1000	ND	121	53-141			

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1171 - EPA 5030B - EPA 8260D										
Matrix Spike (1IJ1171-MS1)	Source: 1IJ1462-01			Prepared: 10/20/25 00:00 Analyzed: 10/20/25 19:05						
Dibromochloromethane	437.4	10.0	ug/L	501	ND	87.4	74-122			
1,2-Dibromoethane	494.6	10.0	ug/L	502	ND	98.5	66-127			
Chlorobenzene	516.9	10.0	ug/L	501	ND	103	76-116			
1,1,1,2-Tetrachloroethane	480.4	10.0	ug/L	503	ND	95.4	77-121			
Ethylbenzene	549.5	10.0	ug/L	502	ND	110	73-124			
Xylenes, total	1733	20.0	ug/L	1510	ND	115	75-123			
Styrene	532.3	10.0	ug/L	504	ND	106	70-120			
Bromoform	500.2	10.0	ug/L	501	ND	99.8	70-124			
1,2,3-Trichloropropane	539.1	10.0	ug/L	503	ND	107	62-135			
trans-1,4-Dichloro-2-butene	1123	50.0	ug/L	1000	ND	112	50-120			
1,1,2,2-Tetrachloroethane	527.3	10.0	ug/L	501	ND	105	63-126			
1,4-Dichlorobenzene	521.7	10.0	ug/L	501	ND	104	72-119			
1,2-Dichlorobenzene	508.4	10.0	ug/L	501	ND	101	71-117			
1,2-Dibromo-3-chloropropane	434.5	50.0	ug/L	501	ND	86.7	49-134			
Surrogate: Dibromofluoromethane	516		ug/L	502		103	57-128			
Surrogate: Dibromofluoromethane	516		ug/L	502		103	75-136			
Surrogate: 1,2-Dichloroethane-d4	610		ug/L	504		121	61-142			
Surrogate: 1,2-Dichloroethane-d4	610		ug/L	504		121	49-135			
Surrogate: Toluene-d8	525		ug/L	505		104	82-116			
Surrogate: Toluene-d8	525		ug/L	505		104	82-121			
Surrogate: 4-Bromofluorobenzene	570		ug/L	502		114	80-116			
Surrogate: 4-Bromofluorobenzene	570		ug/L	502		114	77-114			
Matrix Spike Dup (1IJ1171-MSD1)	Source: 1IJ1462-01			Prepared: 10/20/25 00:00 Analyzed: 10/20/25 19:28						
Chloromethane	274.0	10.0	ug/L	303	ND	90.4	61-152	0.402	26	
Vinyl Chloride	499.3	10.0	ug/L	302	ND	165	66-149	6.25	23	M1
Bromomethane	236.0	10.0	ug/L	301	ND	78.3	43-171	4.64	29	
Chloroethane	278.4	10.0	ug/L	303	ND	91.8	69-148	2.17	25	
Trichlorofluoromethane	302.0	10.0	ug/L	303	ND	99.7	62-163	5.38	25	
1,1-Dichloroethylene	614.8	10.0	ug/L	501	ND	123	70-148	2.96	22	
Acetone	1549	100	ug/L	1000	ND	155	45-173	1.44	30	
Methyl Iodide	1063	10.0	ug/L	1000	ND	106	62-167	3.62	24	
Carbon Disulfide	1007	10.0	ug/L	1000	ND	101	71-163	0.663	22	
Methylene Chloride	495.6	50.0	ug/L	501	ND	98.9	69-140	0.364	19	
Acrylonitrile	613.8	50.0	ug/L	504	ND	122	32-159	0.0814	30	
trans-1,2-Dichloroethylene	611.9	10.0	ug/L	501	ND	122	69-144	3.36	22	
1,1-Dichloroethane	604.1	10.0	ug/L	501	ND	121	70-138	3.96	20	
Vinyl Acetate	1626	50.0	ug/L	1420	ND	114	58-142	3.41	24	
cis-1,2-Dichloroethylene	520.4	10.0	ug/L	504	ND	103	68-151	2.93	22	
2-Butanone (MEK)	1287	100	ug/L	1000	ND	129	50-160	6.12	23	
Bromochloromethane	651.6	10.0	ug/L	504	ND	129	65-143	0.490	22	
Chloroform	557.8	10.0	ug/L	501	ND	111	71-143	0.828	21	
1,1,1-Trichloroethane	557.1	10.0	ug/L	501	ND	111	63-133	3.04	23	
Carbon Tetrachloride	565.9	10.0	ug/L	501	ND	113	63-142	0.669	22	

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1171 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (1IJ1171-MSD1) Source: 1IJ1462-01 Prepared: 10/20/25 00:00 Analyzed: 10/20/25 19:28										
Benzene	552.0	10.0	ug/L	504	ND	109	69-133	1.72	18	
1,2-Dichloroethane	650.8	10.0	ug/L	501	ND	130	63-138	2.88	20	
Trichloroethylene	553.6	10.0	ug/L	501	ND	111	71-133	1.08	23	
1,2-Dichloropropane	568.3	10.0	ug/L	501	ND	113	69-132	1.26	20	
Dibromomethane	485.5	10.0	ug/L	504	ND	96.4	70-147	2.84	22	
Bromodichloromethane	560.3	10.0	ug/L	501	ND	112	67-130	0.0357	21	
cis-1,3-Dichloropropene	465.3	10.0	ug/L	501	ND	92.9	61-126	1.17	21	
4-Methyl-2-pentanone (MIBK)	1268	50.0	ug/L	1000	ND	127	55-147	0.712	23	
Toluene	547.9	10.0	ug/L	505	ND	109	71-133	2.51	19	
trans-1,3-Dichloropropene	528.8	10.0	ug/L	501	ND	106	63-124	0.528	21	
1,1,2-Trichloroethane	555.7	10.0	ug/L	501	ND	111	69-133	2.39	19	
Tetrachloroethylene	496.5	10.0	ug/L	501	ND	99.1	70-124	4.87	24	
2-Hexanone (MBK)	1228	50.0	ug/L	1000	ND	123	53-141	1.53	24	
Dibromochloromethane	444.0	10.0	ug/L	501	ND	88.7	74-122	1.50	21	
1,2-Dibromoethane	492.8	10.0	ug/L	502	ND	98.1	66-127	0.365	23	
Chlorobenzene	499.3	10.0	ug/L	501	ND	99.7	76-116	3.46	21	
1,1,1,2-Tetrachloroethane	474.9	10.0	ug/L	503	ND	94.3	77-121	1.15	25	
Ethylbenzene	546.8	10.0	ug/L	502	ND	109	73-124	0.493	20	
Xylenes, total	1679	20.0	ug/L	1510	ND	111	75-123	3.15	20	
Styrene	525.3	10.0	ug/L	504	ND	104	70-120	1.32	23	
Bromoform	482.1	10.0	ug/L	501	ND	96.2	70-124	3.69	22	
1,2,3-Trichloropropane	519.6	10.0	ug/L	503	ND	103	62-135	3.68	28	
trans-1,4-Dichloro-2-butene	1122	50.0	ug/L	1000	ND	112	50-120	0.107	26	
1,1,2,2-Tetrachloroethane	530.9	10.0	ug/L	501	ND	106	63-126	0.680	24	
1,4-Dichlorobenzene	506.8	10.0	ug/L	501	ND	101	72-119	2.90	24	
1,2-Dichlorobenzene	499.7	10.0	ug/L	501	ND	99.8	71-117	1.73	24	
1,2-Dibromo-3-chloropropane	439.4	50.0	ug/L	501	ND	87.7	49-134	1.12	28	
Surrogate: Dibromofluoromethane	515		ug/L	502		103	57-128			
Surrogate: Dibromofluoromethane	515		ug/L	502		103	75-136			
Surrogate: 1,2-Dichloroethane-d4	622		ug/L	504		123	61-142			
Surrogate: 1,2-Dichloroethane-d4	622		ug/L	504		123	49-135			
Surrogate: Toluene-d8	524		ug/L	505		104	82-116			
Surrogate: Toluene-d8	524		ug/L	505		104	82-121			
Surrogate: 4-Bromofluorobenzene	566		ug/L	502		113	80-116			
Surrogate: 4-Bromofluorobenzene	566		ug/L	502		113	77-114			

Batch 1IJ1499 - EPA 5030B - EPA 8260D

Blank (1IJ1499-BLK1) Prepared: 10/24/25 00:00 Analyzed: 10/24/25 10:44										
Dichlorodifluoromethane	<1.0	1.0	ug/L							
Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1499 - EPA 5030B - EPA 8260D										
Blank (1IJ1499-BLK1)				Prepared: 10/24/25 00:00 Analyzed: 10/24/25 10:44						
Trichlorofluoromethane	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<2.0	2.0	ug/L							
Carbon Disulfide	<1.0	1.0	ug/L							
Acetonitrile	<10.0	10.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
Vinyl Acetate	<5.0	5.0	ug/L							
2,2-Dichloropropane	<1.0	1.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<5.0	5.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
1,1-Dichloropropene	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
Toluene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
Ethyl Methacrylate	<10.0	10.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
1,3-Dichloropropane	<1.0	1.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							

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CERTIFICATE OF ANALYSIS

1IJ1387

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1499 - EPA 5030B - EPA 8260D										
Blank (1IJ1499-BLK1)										
				Prepared: 10/24/25 00:00 Analyzed: 10/24/25 10:44						
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,3-Dichlorobenzene	<1.0	1.0	ug/L							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L							
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L							
Surrogate: Dibromofluoromethane	47.2		ug/L	50.2		94.0	57-128			
Surrogate: 1,2-Dichloroethane-d4	55.3		ug/L	50.4		110	49-135			
Surrogate: Toluene-d8	52.2		ug/L	50.5		103	82-116			
Surrogate: 4-Bromofluorobenzene	52.0		ug/L	50.2		104	77-114			
LCS (1IJ1499-BS1)										
				Prepared: 10/24/25 00:00 Analyzed: 10/24/25 17:12						
Dichlorodifluoromethane	28.06	1.0	ug/L	30.3		92.6	55-141			
Chloromethane	31.27	1.0	ug/L	30.3		103	45-170			
Vinyl Chloride	52.67	1.0	ug/L	30.2		174	51-157			Q2
Bromomethane	28.33	1.0	ug/L	30.1		94.1	51-161			
Chloroethane	28.30	1.0	ug/L	30.3		93.3	68-134			
Trichlorofluoromethane	31.80	1.0	ug/L	30.3		105	54-146			
1,1-Dichloroethylene	63.20	1.0	ug/L	50.1		126	63-137			
Acetone	147.2	10.0	ug/L	100		147	50-156			
Methyl Iodide	85.45	2.0	ug/L	100		85.4	62-147			
Carbon Disulfide	107.3	1.0	ug/L	100		107	60-129			
Acetonitrile	131.8	10.0	ug/L	100		132	53-151			
Methylene Chloride	49.56	5.0	ug/L	50.1		98.9	66-126			
trans-1,2-Dichloroethylene	62.81	1.0	ug/L	50.1		125	68-134			
1,1-Dichloroethane	60.78	1.0	ug/L	50.1		121	69-133			
Vinyl Acetate	151.3	5.0	ug/L	142		106	69-151			
2,2-Dichloropropane	58.30	1.0	ug/L	50.3		116	59-141			
cis-1,2-Dichloroethylene	52.74	1.0	ug/L	50.4		105	70-132			
2-Butanone (MEK)	131.2	5.0	ug/L	100		131	57-136			
Bromochloromethane	64.55	1.0	ug/L	50.4		128	73-127			Q2
Chloroform	54.50	1.0	ug/L	50.1		109	67-130			
1,1,1-Trichloroethane	56.69	1.0	ug/L	50.1		113	63-135			
1,1-Dichloropropene	57.66	1.0	ug/L	50.5		114	66-134			
Carbon Tetrachloride	55.93	1.0	ug/L	50.1		112	67-134			
Benzene	57.32	1.0	ug/L	50.4		114	80-118			
1,2-Dichloroethane	65.63	1.0	ug/L	50.1		131	77-126			Q2
Trichloroethylene	58.90	1.0	ug/L	50.1		118	79-120			
1,2-Dichloropropane	59.31	1.0	ug/L	50.1		118	80-121			
Dibromomethane	50.32	1.0	ug/L	50.4		99.9	75-122			
Bromodichloromethane	58.54	1.0	ug/L	50.1		117	79-123			
cis-1,3-Dichloropropene	48.70	1.0	ug/L	50.1		97.2	77-116			
4-Methyl-2-pentanone (MIBK)	128.8	5.0	ug/L	100		129	64-138			

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CERTIFICATE OF ANALYSIS

11J1387

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11J1499 - EPA 5030B - EPA 8260D										
LCS (11J1499-BS1)										
Prepared: 10/24/25 00:00 Analyzed: 10/24/25 17:12										
Toluene	57.92	1.0	ug/L	50.5		115	79-118			
trans-1,3-Dichloropropene	56.89	1.0	ug/L	50.1		114	77-116			
Ethyl Methacrylate	98.97	10.0	ug/L	100		99.0	63-130			
1,1,2-Trichloroethane	57.34	1.0	ug/L	50.1		114	80-117			
Tetrachloroethylene	53.76	1.0	ug/L	50.1		107	77-126			
1,3-Dichloropropane	55.68	1.0	ug/L	50.4		110	79-131			
2-Hexanone (MBK)	122.2	5.0	ug/L	100		122	60-149			
Dibromochloromethane	44.46	1.0	ug/L	50.1		88.8	86-121			
1,2-Dibromoethane	50.37	1.0	ug/L	50.2		100	77-124			
Chlorobenzene	51.83	1.0	ug/L	50.1		103	77-124			
1,1,1,2-Tetrachloroethane	48.81	1.0	ug/L	50.3		97.0	84-117			
Ethylbenzene	56.81	1.0	ug/L	50.2		113	79-128			
Xylenes, total	176.7	2.0	ug/L	151		117	81-124			
Styrene	54.90	1.0	ug/L	50.4		109	83-124			
Bromoform	49.01	1.0	ug/L	50.1		97.8	81-121			
1,2,3-Trichloropropane	56.03	1.0	ug/L	50.3		111	76-120			
trans-1,4-Dichloro-2-butene	115.2	5.0	ug/L	100		115	55-128			
1,1,2,2-Tetrachloroethane	52.48	1.0	ug/L	50.1		105	65-138			
1,3-Dichlorobenzene	54.53	1.0	ug/L	50.1		109	78-122			
1,4-Dichlorobenzene	51.69	1.0	ug/L	50.1		103	72-125			
1,2-Dichlorobenzene	50.25	1.0	ug/L	50.1		100	76-124			
1,2-Dibromo-3-chloropropane	44.24	1.0	ug/L	50.1		88.3	28-160			
1,2,4-Trichlorobenzene	52.03	1.0	ug/L	50.4		103	34-154			
Surrogate: Dibromofluoromethane	47.8		ug/L	50.2		95.1	57-128			
Surrogate: 1,2-Dichloroethane-d4	58.6		ug/L	50.4		116	49-135			
Surrogate: Toluene-d8	52.5		ug/L	50.5		104	82-116			
Surrogate: 4-Bromofluorobenzene	57.9		ug/L	50.2		115	77-114			S1
LCS Dup (11J1499-BSD1)										
Prepared: 10/24/25 00:00 Analyzed: 10/24/25 17:35										
Dichlorodifluoromethane	28.81	1.0	ug/L	30.3		95.1	55-141	2.64	24	
Chloromethane	32.44	1.0	ug/L	30.3		107	45-170	3.67	25	
Vinyl Chloride	50.05	1.0	ug/L	30.2		165	51-157	5.10	23	Q2
Bromomethane	49.70	1.0	ug/L	30.1		165	51-161	54.8	22	Q2, R1
Chloroethane	28.15	1.0	ug/L	30.3		92.8	68-134	0.531	21	
Trichlorofluoromethane	31.75	1.0	ug/L	30.3		105	54-146	0.157	23	
1,1-Dichloroethylene	61.83	1.0	ug/L	50.1		123	63-137	2.19	23	
Acetone	138.2	10.0	ug/L	100		138	50-156	6.32	30	
Methyl Iodide	96.53	2.0	ug/L	100		96.5	62-147	12.2	17	
Carbon Disulfide	107.3	1.0	ug/L	100		107	60-129	0.0559	20	
Acetonitrile	123.8	10.0	ug/L	100		124	53-151	6.31	30	
Methylene Chloride	52.02	5.0	ug/L	50.1		104	66-126	4.84	14	
trans-1,2-Dichloroethylene	62.04	1.0	ug/L	50.1		124	68-134	1.23	17	
1,1-Dichloroethane	62.56	1.0	ug/L	50.1		125	69-133	2.89	14	

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CERTIFICATE OF ANALYSIS

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11J1499 - EPA 5030B - EPA 8260D										
LCS Dup (11J1499-BSD1)				Prepared: 10/24/25 00:00 Analyzed: 10/24/25 17:35						
Vinyl Acetate	160.4	5.0	ug/L	142		113	69-151	5.81	30	
2,2-Dichloropropane	58.06	1.0	ug/L	50.3		115	59-141	0.413	30	
cis-1,2-Dichloroethylene	52.27	1.0	ug/L	50.4		104	70-132	0.895	13	
2-Butanone (MEK)	126.5	5.0	ug/L	100		127	57-136	3.65	30	
Bromochloromethane	65.26	1.0	ug/L	50.4		129	73-127	1.09	30	Q2
Chloroform	54.96	1.0	ug/L	50.1		110	67-130	0.840	13	
1,1,1-Trichloroethane	55.76	1.0	ug/L	50.1		111	63-135	1.65	15	
1,1-Dichloropropene	58.84	1.0	ug/L	50.5		117	66-134	2.03	30	
Carbon Tetrachloride	55.93	1.0	ug/L	50.1		112	67-134	0.00	16	
Benzene	56.52	1.0	ug/L	50.4		112	80-118	1.41	13	
1,2-Dichloroethane	63.94	1.0	ug/L	50.1		128	77-126	2.61	16	Q2
Trichloroethylene	56.55	1.0	ug/L	50.1		113	79-120	4.07	16	
1,2-Dichloropropane	58.69	1.0	ug/L	50.1		117	80-121	1.05	13	
Dibromomethane	48.89	1.0	ug/L	50.4		97.1	75-122	2.88	30	
Bromodichloromethane	56.74	1.0	ug/L	50.1		113	79-123	3.12	12	
cis-1,3-Dichloropropene	47.96	1.0	ug/L	50.1		95.8	77-116	1.53	13	
4-Methyl-2-pentanone (MIBK)	125.3	5.0	ug/L	100		125	64-138	2.76	30	
Toluene	55.76	1.0	ug/L	50.5		110	79-118	3.80	14	
trans-1,3-Dichloropropene	56.24	1.0	ug/L	50.1		112	77-116	1.15	17	
Ethyl Methacrylate	98.30	10.0	ug/L	100		98.3	63-130	0.679	30	
1,1,2-Trichloroethane	54.54	1.0	ug/L	50.1		109	80-117	5.01	18	
Tetrachloroethylene	51.58	1.0	ug/L	50.1		103	77-126	4.14	15	
1,3-Dichloropropane	55.29	1.0	ug/L	50.4		110	79-131	0.703	30	
2-Hexanone (MBK)	118.2	5.0	ug/L	100		118	60-149	3.32	30	
Dibromochloromethane	44.80	1.0	ug/L	50.1		89.5	86-121	0.762	14	
1,2-Dibromoethane	50.65	1.0	ug/L	50.2		101	77-124	0.554	30	
Chlorobenzene	50.62	1.0	ug/L	50.1		101	77-124	2.36	14	
1,1,1,2-Tetrachloroethane	48.09	1.0	ug/L	50.3		95.5	84-117	1.49	30	
Ethylbenzene	54.93	1.0	ug/L	50.2		109	79-128	3.36	14	
Xylenes, total	170.9	2.0	ug/L	151		113	81-124	3.32	16	
Styrene	53.11	1.0	ug/L	50.4		105	83-124	3.31	30	
Bromoform	49.27	1.0	ug/L	50.1		98.3	81-121	0.529	21	
1,2,3-Trichloropropane	52.59	1.0	ug/L	50.3		104	76-120	6.33	30	
trans-1,4-Dichloro-2-butene	116.8	5.0	ug/L	100		117	55-128	1.36	30	
1,1,2,2-Tetrachloroethane	53.45	1.0	ug/L	50.1		107	65-138	1.83	27	
1,3-Dichlorobenzene	52.88	1.0	ug/L	50.1		106	78-122	3.07	13	
1,4-Dichlorobenzene	51.73	1.0	ug/L	50.1		103	72-125	0.0774	11	
1,2-Dichlorobenzene	51.01	1.0	ug/L	50.1		102	76-124	1.50	13	
1,2-Dibromo-3-chloropropane	43.21	1.0	ug/L	50.1		86.2	28-160	2.36	30	
1,2,4-Trichlorobenzene	52.84	1.0	ug/L	50.4		105	34-154	1.54	30	
Surrogate: Dibromofluoromethane	49.5		ug/L	50.2		98.6	57-128			
Surrogate: 1,2-Dichloroethane-d4	60.1		ug/L	50.4		119	49-135			

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CERTIFICATE OF ANALYSIS

1IJ1387

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1499 - EPA 5030B - EPA 8260D										
LCS Dup (1IJ1499-BSD1)				Prepared: 10/24/25 00:00 Analyzed: 10/24/25 17:35						
Surrogate: Toluene-d8	51.5		ug/L	50.5		102	82-116			
Surrogate: 4-Bromofluorobenzene	58.6		ug/L	50.2		117	77-114			S1
Matrix Spike (1IJ1499-MS1)				Source: 1IJ1987-01 Prepared: 10/24/25 00:00 Analyzed: 10/24/25 17:58						
Dichlorodifluoromethane	303.8	10.0	ug/L	303	ND	100	58-130			
Chloromethane	325.2	10.0	ug/L	303	ND	107	40-170			
Vinyl Chloride	534.3	10.0	ug/L	302	ND	177	49-154			M1
Bromomethane	501.0	10.0	ug/L	301	ND	166	44-159			M1
Chloroethane	532.9	10.0	ug/L	303	ND	176	67-132			M1
Trichlorofluoromethane	653.4	10.0	ug/L	303	ND	216	56-142			M1
1,1-Dichloroethylene	1139	10.0	ug/L	501	ND	227	63-136			M1
Acetone	3087	100	ug/L	1000	ND	309	42-165			M1
Methyl Iodide	1826	20.0	ug/L	1000	ND	183	67-133			M1
Carbon Disulfide	1981	10.0	ug/L	1000	ND	198	56-129			M1
Acetonitrile	1367	100	ug/L	1000	ND	137	61-141			
Methylene Chloride	506.0	50.0	ug/L	501	ND	101	62-129			
trans-1,2-Dichloroethylene	616.1	10.0	ug/L	501	ND	123	65-136			
1,1-Dichloroethane	611.6	10.0	ug/L	501	ND	122	64-137			
Vinyl Acetate	1575	50.0	ug/L	1420	ND	111	69-148			
2,2-Dichloropropane	570.9	10.0	ug/L	503	ND	113	52-123			
cis-1,2-Dichloroethylene	534.9	10.0	ug/L	504	ND	106	65-136			
2-Butanone (MEK)	1314	50.0	ug/L	1000	ND	131	56-147			
Bromochloromethane	644.2	10.0	ug/L	504	ND	128	78-121			M1
Chloroform	550.1	10.0	ug/L	501	ND	110	64-133			
1,1,1-Trichloroethane	567.3	10.0	ug/L	501	ND	113	61-138			
1,1-Dichloropropene	577.2	10.0	ug/L	505	ND	114	69-130			
Carbon Tetrachloride	570.9	10.0	ug/L	501	ND	114	62-140			
Benzene	574.8	10.0	ug/L	504	ND	114	62-137			
1,2-Dichloroethane	658.8	10.0	ug/L	501	ND	132	69-135			
Trichloroethylene	570.7	10.0	ug/L	501	ND	114	77-123			
1,2-Dichloropropane	592.9	10.0	ug/L	501	ND	118	77-126			
Dibromomethane	508.4	10.0	ug/L	504	ND	101	83-116			
Bromodichloromethane	581.5	10.0	ug/L	501	ND	116	73-131			
cis-1,3-Dichloropropene	494.1	10.0	ug/L	501	ND	98.7	71-115			
4-Methyl-2-pentanone (MIBK)	1282	50.0	ug/L	1000	ND	128	71-138			
Toluene	566.8	10.0	ug/L	505	ND	112	76-121			
trans-1,3-Dichloropropene	577.8	10.0	ug/L	501	ND	115	76-113			M1
Ethyl Methacrylate	1017	100	ug/L	1000	ND	102	74-121			
1,1,2-Trichloroethane	553.4	10.0	ug/L	501	ND	110	80-122			
Tetrachloroethylene	512.6	10.0	ug/L	501	ND	102	76-125			
1,3-Dichloropropane	572.3	10.0	ug/L	504	ND	113	79-133			
2-Hexanone (MBK)	1337	50.0	ug/L	1000	ND	134	64-154			
Dibromochloromethane	453.3	10.0	ug/L	501	ND	90.5	84-122			

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CERTIFICATE OF ANALYSIS

1IJ1387

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1499 - EPA 5030B - EPA 8260D										
Matrix Spike (1IJ1499-MS1) Source: 1IJ1987-01 Prepared: 10/24/25 00:00 Analyzed: 10/24/25 17:58										
1,2-Dibromoethane	518.8	10.0	ug/L	502	ND	103	81-120			
Chlorobenzene	519.6	10.0	ug/L	501	ND	104	78-123			
1,1,1,2-Tetrachloroethane	498.0	10.0	ug/L	503	ND	98.9	83-117			
Ethylbenzene	563.9	10.0	ug/L	502	ND	112	76-130			
Xylenes, total	1779	20.0	ug/L	1510	ND	118	77-129			
Styrene	549.3	10.0	ug/L	504	ND	109	84-122			
Bromoform	503.1	10.0	ug/L	501	ND	100	83-120			
1,2,3-Trichloropropane	529.2	10.0	ug/L	503	ND	105	74-126			
trans-1,4-Dichloro-2-butene	1154	50.0	ug/L	1000	ND	115	63-114			M1
1,1,1,2-Tetrachloroethane	546.4	10.0	ug/L	501	ND	109	66-143			
1,3-Dichlorobenzene	537.7	10.0	ug/L	501	ND	107	77-120			
1,4-Dichlorobenzene	520.4	10.0	ug/L	501	ND	104	71-123			
1,2-Dichlorobenzene	516.3	10.0	ug/L	501	ND	103	76-122			
1,2-Dibromo-3-chloropropane	432.2	10.0	ug/L	501	ND	86.2	38-161			
1,2,4-Trichlorobenzene	538.2	10.0	ug/L	504	ND	107	33-150			
Surrogate: Dibromofluoromethane	476		ug/L	502		94.8	57-128			
Surrogate: 1,2-Dichloroethane-d4	592		ug/L	504		118	49-135			
Surrogate: Toluene-d8	516		ug/L	505		102	82-116			
Surrogate: 4-Bromofluorobenzene	577		ug/L	502		115	77-114			S1
Matrix Spike Dup (1IJ1499-MSD1) Source: 1IJ1987-01 Prepared: 10/24/25 00:00 Analyzed: 10/24/25 18:21										
Dichlorodifluoromethane	319.5	10.0	ug/L	303	ND	105	58-130	5.04	30	
Chloromethane	320.1	10.0	ug/L	303	ND	106	40-170	1.58	16	
Vinyl Chloride	506.1	10.0	ug/L	302	ND	167	49-154	5.42	17	M1
Bromomethane	255.1	10.0	ug/L	301	ND	84.7	44-159	65.0	15	R1
Chloroethane	274.4	10.0	ug/L	303	ND	90.5	67-132	64.0	15	R1
Trichlorofluoromethane	309.1	10.0	ug/L	303	ND	102	56-142	71.5	18	R1
1,1-Dichloroethylene	622.1	10.0	ug/L	501	ND	124	63-136	58.7	16	R1
Acetone	1734	100	ug/L	1000	ND	173	42-165	56.1	30	M1, R1
Methyl Iodide	996.2	20.0	ug/L	1000	ND	99.6	67-133	58.8	14	R1
Carbon Disulfide	1056	10.0	ug/L	1000	ND	106	56-129	60.9	16	R1
Acetonitrile	1307	100	ug/L	1000	ND	131	61-141	4.49	10	
Methylene Chloride	510.8	50.0	ug/L	501	ND	102	62-129	0.944	14	
trans-1,2-Dichloroethylene	618.0	10.0	ug/L	501	ND	123	65-136	0.308	14	
1,1-Dichloroethane	614.4	10.0	ug/L	501	ND	123	64-137	0.457	15	
Vinyl Acetate	1601	50.0	ug/L	1420	ND	112	69-148	1.62	16	
2,2-Dichloropropane	568.0	10.0	ug/L	503	ND	113	52-123	0.509	18	
cis-1,2-Dichloroethylene	513.9	10.0	ug/L	504	ND	102	65-136	4.00	16	
2-Butanone (MEK)	1334	50.0	ug/L	1000	ND	133	56-147	1.57	19	
Bromochloromethane	640.2	10.0	ug/L	504	ND	127	78-121	0.623	16	M1
Chloroform	542.3	10.0	ug/L	501	ND	108	64-133	1.43	14	
1,1,1-Trichloroethane	560.5	10.0	ug/L	501	ND	112	61-138	1.21	15	
1,1-Dichloropropene	571.9	10.0	ug/L	505	ND	113	69-130	0.922	16	

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1IJ1387

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1499 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (1IJ1499-MSD1)	Source: 1IJ1987-01			Prepared: 10/24/25 00:00 Analyzed: 10/24/25 18:21						
Carbon Tetrachloride	557.3	10.0	ug/L	501	ND	111	62-140	2.41	15	
Benzene	568.7	10.0	ug/L	504	ND	113	62-137	1.07	16	
1,2-Dichloroethane	661.8	10.0	ug/L	501	ND	132	69-135	0.454	15	
Trichloroethylene	565.7	10.0	ug/L	501	ND	113	77-123	0.880	14	
1,2-Dichloropropane	595.8	10.0	ug/L	501	ND	119	77-126	0.488	13	
Dibromomethane	488.5	10.0	ug/L	504	ND	97.0	83-116	3.99	13	
Bromodichloromethane	590.6	10.0	ug/L	501	ND	118	73-131	1.55	16	
cis-1,3-Dichloropropene	505.5	10.0	ug/L	501	ND	101	71-115	2.28	15	
4-Methyl-2-pentanone (MIBK)	1292	50.0	ug/L	1000	ND	129	71-138	0.839	10	
Toluene	558.6	10.0	ug/L	505	ND	111	76-121	1.46	16	
trans-1,3-Dichloropropene	564.9	10.0	ug/L	501	ND	113	76-113	2.26	10	
Ethyl Methacrylate	1027	100	ug/L	1000	ND	103	74-121	0.959	10	
1,1,2-Trichloroethane	569.4	10.0	ug/L	501	ND	114	80-122	2.85	11	
Tetrachloroethylene	504.7	10.0	ug/L	501	ND	101	76-125	1.55	15	
1,3-Dichloropropane	563.5	10.0	ug/L	504	ND	112	79-133	1.55	13	
2-Hexanone (MBK)	1327	50.0	ug/L	1000	ND	133	64-154	0.766	12	
Dibromochloromethane	455.1	10.0	ug/L	501	ND	90.9	84-122	0.396	13	
1,2-Dibromoethane	507.0	10.0	ug/L	502	ND	101	81-120	2.30	13	
Chlorobenzene	509.1	10.0	ug/L	501	ND	102	78-123	2.04	12	
1,1,1,2-Tetrachloroethane	494.7	10.0	ug/L	503	ND	98.3	83-117	0.665	16	
Ethylbenzene	553.6	10.0	ug/L	502	ND	110	76-130	1.84	13	
Xylenes, total	1718	20.0	ug/L	1510	ND	114	77-129	3.52	13	
Styrene	534.8	10.0	ug/L	504	ND	106	84-122	2.68	14	
Bromoform	492.7	10.0	ug/L	501	ND	98.3	83-120	2.09	10	
1,2,3-Trichloropropane	535.3	10.0	ug/L	503	ND	106	74-126	1.15	13	
trans-1,4-Dichloro-2-butene	1151	50.0	ug/L	1000	ND	115	63-114	0.226	14	M1
1,1,2,2-Tetrachloroethane	536.6	10.0	ug/L	501	ND	107	66-143	1.81	16	
1,3-Dichlorobenzene	535.3	10.0	ug/L	501	ND	107	77-120	0.447	18	
1,4-Dichlorobenzene	516.8	10.0	ug/L	501	ND	103	71-123	0.694	16	
1,2-Dichlorobenzene	506.5	10.0	ug/L	501	ND	101	76-122	1.92	17	
1,2-Dibromo-3-chloropropane	456.7	10.0	ug/L	501	ND	91.1	38-161	5.51	27	
1,2,4-Trichlorobenzene	513.2	10.0	ug/L	504	ND	102	33-150	4.76	29	
Surrogate: Dibromofluoromethane	492		ug/L	502		98.0	57-128			
Surrogate: 1,2-Dichloroethane-d4	589		ug/L	504		117	49-135			
Surrogate: Toluene-d8	522		ug/L	505		103	82-116			
Surrogate: 4-Bromofluorobenzene	583		ug/L	502		116	77-114			S1

Batch 1IJ1564 - EPA 5030B - EPA 8260D

Blank (1IJ1564-BLK1)	Prepared: 10/27/25 00:00 Analyzed: 10/27/25 17:09									
Allyl chloride	<1.0	1.0	ug/L							
Chloroprene	<1.0	1.0	ug/L							
Methacrylonitrile	<1.0	1.0	ug/L							



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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes
Batch 11J1564 - EPA 5030B - EPA 8260D										
Blank (11J1564-BLK1)				Prepared: 10/27/25 00:00 Analyzed: 10/27/25 17:09						
Methyl Methacrylate	<1.0	1.0	ug/L							
Propionitrile	<10.0	10.0	ug/L							
Surrogate: Dibromofluoromethane	51.7		ug/L	50.2		103	57-128			S1
Surrogate: 1,2-Dichloroethane-d4	104		ug/L	50.4		206	49-135			
Surrogate: Toluene-d8	51.7		ug/L	50.5		102	82-116			
Surrogate: 4-Bromofluorobenzene	49.4		ug/L	50.2		98.5	77-114			
LCS (11J1564-BS1)				Prepared: 10/27/25 00:00 Analyzed: 10/27/25 16:00						
Allyl chloride	53.15	1.0	ug/L	50.0		106	56-152			
Chloroprene	56.92	1.0	ug/L	50.0		114	58-152			
Methacrylonitrile	49.78	1.0	ug/L	50.0		99.6	67-129			
Methyl Methacrylate	50.41	1.0	ug/L	50.0		101	73-122			
Propionitrile	48.09	10.0	ug/L	50.0		96.2	57-157			
Surrogate: Dibromofluoromethane	49.8		ug/L	50.2		99.2	57-128			
Surrogate: 1,2-Dichloroethane-d4	46.6		ug/L	50.4		92.5	49-135			
Surrogate: Toluene-d8	49.0		ug/L	50.5		97.2	82-116			
Surrogate: 4-Bromofluorobenzene	50.3		ug/L	50.2		100	77-114			
LCS Dup (11J1564-BSD1)				Prepared: 10/27/25 00:00 Analyzed: 10/27/25 16:23						
Allyl chloride	51.38	1.0	ug/L	50.0		103	56-152	3.39	16	
Chloroprene	55.11	1.0	ug/L	50.0		110	58-152	3.23	30	
Methacrylonitrile	52.19	1.0	ug/L	50.0		104	67-129	4.73	30	
Methyl Methacrylate	49.95	1.0	ug/L	50.0		99.9	73-122	0.917	17	
Propionitrile	52.55	10.0	ug/L	50.0		105	57-157	8.86	30	
Surrogate: Dibromofluoromethane	51.2		ug/L	50.2		102	57-128			
Surrogate: 1,2-Dichloroethane-d4	47.4		ug/L	50.4		94.1	49-135			
Surrogate: Toluene-d8	49.0		ug/L	50.5		97.1	82-116			
Surrogate: 4-Bromofluorobenzene	51.3		ug/L	50.2		102	77-114			
Matrix Spike (11J1564-MS1)				Source: 11J1387-05		Prepared: 10/27/25 00:00 Analyzed: 10/27/25 19:03				
Allyl chloride	549.0	10.0	ug/L	500	ND	110	66-136			
Chloroprene	635.4	10.0	ug/L	500	ND	127	67-139			
Methacrylonitrile	576.4	10.0	ug/L	500	ND	115	60-140			
Methyl Methacrylate	576.2	10.0	ug/L	500	ND	115	86-112			M1
Propionitrile	571.5	100	ug/L	500	ND	114	52-182			
Surrogate: Dibromofluoromethane	510		ug/L	502		102	57-128			
Surrogate: 1,2-Dichloroethane-d4	559		ug/L	504		111	49-135			
Surrogate: Toluene-d8	524		ug/L	505		104	82-116			
Surrogate: 4-Bromofluorobenzene	496		ug/L	502		98.9	77-114			
Matrix Spike Dup (11J1564-MSD1)				Source: 11J1387-05		Prepared: 10/27/25 00:00 Analyzed: 10/27/25 19:26				
Allyl chloride	538.9	10.0	ug/L	500	ND	108	66-136	1.86	30	
Chloroprene	628.1	10.0	ug/L	500	ND	126	67-139	1.16	30	
Methacrylonitrile	576.3	10.0	ug/L	500	ND	115	60-140	0.0174	30	

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1564 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (1IJ1564-MSD1)	Source: 1IJ1387-05			Prepared: 10/27/25 00:00 Analyzed: 10/27/25 19:26						
Methyl Methacrylate	579.5	10.0	ug/L	500	ND	116	86-112	0.571	30	M1
Propionitrile	599.5	100	ug/L	500	ND	120	52-182	4.78	30	
Surrogate: Dibromofluoromethane	511		ug/L	502		102	57-128			
Surrogate: 1,2-Dichloroethane-d4	566		ug/L	504		112	49-135			
Surrogate: Toluene-d8	529		ug/L	505		105	82-116			
Surrogate: 4-Bromofluorobenzene	959		ug/L	502		191	77-114			S1
Batch 1IJ1670 - EPA 5030B - EPA 8260D										
Blank (1IJ1670-BLK1)	Prepared: 10/21/25 00:00 Analyzed: 10/21/25 10:46									
Carbon Disulfide	<1.0	1.0	ug/L							
Surrogate: Dibromofluoromethane	46.0		ug/L	50.2		91.7	75-136			
Surrogate: 1,2-Dichloroethane-d4	48.2		ug/L	50.4		95.7	61-142			
Surrogate: Toluene-d8	52.2		ug/L	50.5		103	82-121			
Surrogate: 4-Bromofluorobenzene	28.3		ug/L	50.2		56.4	80-116			S2
LCS (1IJ1670-BS1)	Prepared: 10/21/25 00:00 Analyzed: 10/21/25 09:37									
Carbon Disulfide	115.6	1.0	ug/L	100		116	72-162			
Surrogate: Dibromofluoromethane	49.8		ug/L	50.2		99.2	75-136			
Surrogate: 1,2-Dichloroethane-d4	59.8		ug/L	50.4		119	61-142			
Surrogate: Toluene-d8	51.7		ug/L	50.5		102	82-121			
Surrogate: 4-Bromofluorobenzene	56.2		ug/L	50.2		112	80-116			
LCS Dup (1IJ1670-BSD1)	Prepared: 10/21/25 00:00 Analyzed: 10/21/25 10:00									
Carbon Disulfide	116.6	1.0	ug/L	100		117	72-162	0.853	24	
Surrogate: Dibromofluoromethane	49.2		ug/L	50.2		98.1	75-136			
Surrogate: 1,2-Dichloroethane-d4	60.4		ug/L	50.4		120	61-142			
Surrogate: Toluene-d8	51.8		ug/L	50.5		103	82-121			
Surrogate: 4-Bromofluorobenzene	55.7		ug/L	50.2		111	80-116			
Determination of General Solvents	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1478 - Semi-Vol GC - EPA 8015C										
Blank (1IJ1478-BLK1)	Prepared: 10/24/25 11:19 Analyzed: 10/24/25 17:37									
Isobutanol	<1.0	1.0	mg/L							
LCS (1IJ1478-BS1)	Prepared: 10/24/25 11:19 Analyzed: 10/24/25 14:55									
Isobutanol	22.35	1.0	mg/L	24.0		93.1	77-128			
Matrix Spike (1IJ1478-MS1)	Source: 1IJ1904-01			Prepared: 10/24/25 11:19 Analyzed: 10/25/25 01:40						
Isobutanol	25.28	1.0	mg/L	24.0	ND	105	68-127			
Matrix Spike Dup (1IJ1478-MSD1)	Source: 1IJ1904-01			Prepared: 10/24/25 11:19 Analyzed: 10/25/25 02:17						
Isobutanol	28.62	1.0	mg/L	24.0	ND	119	68-127	12.4	30	

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Determination of General Solvents	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch 11J1125 - 3520C BNA Cont Liq - EPA 8270C

Blank (11J1125-BLK1)

Prepared: 10/20/25 09:41 Analyzed: 10/29/25 09:48

N-Nitrosodimethylamine	<8	8	ug/L
Methyl Methanesulfonate	<8	8	ug/L
N-Nitrosodiethylamine	<8	8	ug/L
N-Nitrosomethylethylamine	<8	8	ug/L
Ethyl Methanesulfonate	<8	8	ug/L
Phenol	<8	8	ug/L
Bis(2-Chloroethyl) Ether	<8	8	ug/L
2-Chlorophenol	<8	8	ug/L
Benzyl Alcohol	<8	8	ug/L
2-Methylphenol (o-Cresol)	<8	8	ug/L
Bis[2-Chloroisopropyl]ether	<8	8	ug/L
n-Nitroso-di-n-propylamine	<8	8	ug/L
N-Nitrosopyrrolidine	<8	8	ug/L
Acetophenone	<8	8	ug/L
o-Toluidine	<8	8	ug/L
(3 & 4)-Methylphenol	<8	8	ug/L
Hexachloroethane	<8	8	ug/L
Nitrobenzene	<8	8	ug/L
N-Nitrosopiperidine	<8	8	ug/L
Isophorone	<8	8	ug/L
2-Nitrophenol	<8	8	ug/L
2,4-Dimethylphenol	<8	8	ug/L
Bis (2-Chloroethoxy) Methane	<8	8	ug/L
2,4-Dichlorophenol	<8	8	ug/L
Naphthalene	<8	8	ug/L
4-Chloroaniline	<8	8	ug/L
2,6-Dichlorophenol	<8	8	ug/L
Hexachloropropene	<8	8	ug/L
Hexachlorobutadiene	<8	8	ug/L
N-Nitrosodi-n-butylamine	<8	8	ug/L
1,4-Phenylenediamine	<8	8	ug/L
4-Chloro-3-methylphenol	<8	8	ug/L
2-Methylnaphthalene	<8	8	ug/L
Isosafrole	<8	8	ug/L
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L
Hexachlorocyclopentadiene	<8	8	ug/L
2,4,6-Trichlorophenol	<8	8	ug/L
2,4,5-Trichlorophenol	<8	8	ug/L
Safrole	<8	8	ug/L

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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1125 - 3520C BNA Cont Liq - EPA 8270C									
Blank (1IJ1125-BLK1)				Prepared: 10/20/25 09:41 Analyzed: 10/29/25 09:48					
2-Chloronaphthalene	<8	8	ug/L						
2-Nitroaniline	<8	8	ug/L						
1,4-Naphthoquinone	<8	8	ug/L						
Dimethylphthalate	<8	8	ug/L						
1,3-Dinitrobenzene	<8	8	ug/L						
1,2-Dinitrobenzene	<8	8	ug/L						
2,6-Dinitrotoluene	<8	8	ug/L						
Acenaphthylene	<8	8	ug/L						
3-Nitroaniline	<8	8	ug/L						
Acenaphthene	<8	8	ug/L						
2,4-Dinitrophenol	<8	8	ug/L						
4-Nitrophenol	<8	8	ug/L						
Dibenzofuran	<8	8	ug/L						
2,4-Dinitrotoluene	<8	8	ug/L						
2,3,4,6-Tetrachlorophenol	<8	8	ug/L						
Pentachlorobenzene	<8	8	ug/L						
1-Naphthylamine	<8	8	ug/L						
2-Naphthylamine	<8	8	ug/L						
Diethyl Phthalate	<8	8	ug/L						
Fluorene	<8	8	ug/L						
4-Chlorophenyl Phenyl Ether	<8	8	ug/L						
4-Nitroaniline	<8	8	ug/L						
5-Nitro-o-toluidine	<8	8	ug/L						
4,6-Dinitro-2-methylphenol	<8	8	ug/L						
N-Nitrosodiphenylamine	<8	8	ug/L						
Diphenylamine	<8	8	ug/L						
Azobenzene	<8	8	ug/L						
Diallate	<8	8	ug/L						
1,3,5-Trinitrobenzene	<8	8	ug/L						
Phenacetin	<8	8	ug/L						
4-Bromophenyl Phenyl Ether	<8	8	ug/L						
4-Aminobiphenyl	<8	8	ug/L						
Pentachlorophenol	<8	8	ug/L						
Pronamide	<8	8	ug/L						
Pentachloronitrobenzene (PCNB)	<8	8	ug/L						
Phenanthrene	<8	8	ug/L						
Anthracene	<8	8	ug/L						
Di-n-butyl Phthalate	<8	8	ug/L						
Methapyrilene	<8	8	ug/L						
Fluoranthene	<8	8	ug/L						
Isodrin	<8	8	ug/L						

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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1125 - 3520C BNA Cont Liq - EPA 8270C									
Blank (1IJ1125-BLK1)									
Prepared: 10/20/25 09:41 Analyzed: 10/29/25 09:48									
Chlorobenzilate	<8	8	ug/L						
Pyrene	<8	8	ug/L						
p-(Dimethylamino)azobenzene	<8	8	ug/L						
3,3-Dimethylbenzidine	<8	8	ug/L						
Butyl Benzyl Phthalate	<8	8	ug/L						
Benzo(a)anthracene	<8	8	ug/L						
Chrysene	<8	8	ug/L						
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L						
Kepone	<8	8	ug/L						
3,3'-Dichlorobenzidine	<8	8	ug/L						
2-Acetylaminofluorene	<8	8	ug/L						
Di-n-octyl Phthalate	<8	8	ug/L						
Benzo(b)Fluoranthene	<8	8	ug/L						
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L						
Benzo(k)Fluoranthene	<8	8	ug/L						
Benzo(a)Pyrene	<8	8	ug/L						
3-Methylcholanthrene	<8	8	ug/L						
Dibenzo(a,h)anthracene	<8	8	ug/L						
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L						
Benzo(g,h,i)perylene	<8	8	ug/L						
Surrogate: 2-Fluorophenol	18.7		ug/L	20.2		92.2	10-159		
Surrogate: Phenol-d6	19.2		ug/L	19.8		97.0	10-162		
Surrogate: Nitrobenzene-d5	16.8		ug/L	19.5		86.3	17-154		
Surrogate: 2-Fluorobiphenyl	17.3		ug/L	19.4		89.3	15-150		
Surrogate: 2,4,6-Tribromophenol	20.3		ug/L	20.5		99.1	10-156		
Surrogate: Terphenyl-d14	12.1		ug/L	12.2		99.6	10-179		
LCS (1IJ1125-BS1)									
Prepared: 10/20/25 09:41 Analyzed: 10/29/25 10:13									
N-Nitrosodimethylamine	<8	8	ug/L	12.0		50.9	12-122		
Methyl Methanesulfonate	<8	8	ug/L	12.0		59.6	49-110		
N-Nitrosodiethylamine	9.8	8	ug/L	12.0		81.6	19-139		
N-Nitrosomethylethylamine	8.9	8	ug/L	12.0		74.2	13-158		
Ethyl Methanesulfonate	9.9	8	ug/L	12.0		82.2	50-110		
Phenol	11.7	8	ug/L	12.0		97.3	15-130		
Bis(2-Chloroethyl) Ether	10.6	8	ug/L	12.0		88.8	28-128		
2-Chlorophenol	11.5	8	ug/L	12.0		95.9	12-155		
Benzyl Alcohol	8.5	8	ug/L	12.0		70.7	13-143		
2-Methylphenol (o-Cresol)	13.0	8	ug/L	12.0		108	37-125		
Bis[2-Chloroisopropyl]ether	10.9	8	ug/L	12.0		90.7	31-130		
n-Nitroso-di-n-propylamine	12.4	8	ug/L	12.0		103	38-128		
N-Nitrosopyrrolidine	10.6	8	ug/L	12.0		88.2	22-143		
Acetophenone	10.5	8	ug/L	12.0		87.2	52-120		

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CERTIFICATE OF ANALYSIS

1IJ1387

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1125 - 3520C BNA Cont Liq - EPA 8270C									
LCS (1IJ1125-BS1)									
				Prepared: 10/20/25 09:41 Analyzed: 10/29/25 10:13					
o-Toluidine	<8	8	ug/L	12.0		28.7	10-110		
(3 & 4)-Methylphenol	12.3	8	ug/L	12.0		103	35-129		
Hexachloroethane	8.6	8	ug/L	12.0		71.8	19-110		
Nitrobenzene	11.5	8	ug/L	12.0		95.9	26-148		
N-Nitrosopiperidine	10.0	8	ug/L	12.0		83.4	23-140		
Isophorone	12.0	8	ug/L	12.0		99.8	37-134		
2-Nitrophenol	12.0	8	ug/L	12.0		99.7	37-127		
2,4-Dimethylphenol	11.9	8	ug/L	12.0		99.5	36-131		
Bis (2-Chloroethoxy) Methane	11.7	8	ug/L	12.0		97.2	31-119		
2,4-Dichlorophenol	12.6	8	ug/L	12.0		105	32-148		
Naphthalene	10.7	8	ug/L	12.0		88.8	37-110		
4-Chloroaniline	<8	8	ug/L	12.0		18.8	10-110		
2,6-Dichlorophenol	11.4	8	ug/L	12.0		94.8	28-154		
Hexachloropropene	8.4	8	ug/L	12.0		69.7	10-110		
Hexachlorobutadiene	<8	8	ug/L	12.0		59.5	21-110		
N-Nitrosodi-n-butylamine	10.4	8	ug/L	12.0		86.6	24-135		
1,4-Phenylenediamine	<8	8	ug/L	12.0			10-103		Q3
4-Chloro-3-methylphenol	13.2	8	ug/L	12.0		110	32-146		
2-Methylnaphthalene	10.9	8	ug/L	12.0		90.8	36-113		
Isosafrole	10.1	8	ug/L	12.0		83.9	43-117		
1,2,4,5-Tetrachlorobenzene	8.9	8	ug/L	12.0		74.0	34-110		
Hexachlorocyclopentadiene	8.3	8	ug/L	12.0		68.8	10-110		
2,4,6-Trichlorophenol	12.4	8	ug/L	12.0		103	32-159		
2,4,5-Trichlorophenol	13.2	8	ug/L	12.0		110	35-164		
Safrole	10.4	8	ug/L	12.0		86.2	34-122		
2-Chloronaphthalene	10.9	8	ug/L	12.0		90.9	18-136		
2-Nitroaniline	12.9	8	ug/L	12.0		108	35-151		
1,4-Naphthoquinone	11.8	8	ug/L	12.0		98.2	32-188		
Dimethylphthalate	11.8	8	ug/L	12.0		98.8	39-147		
1,3-Dinitrobenzene	12.3	8	ug/L	12.0		102	30-163		
1,2-Dinitrobenzene	13.2	8	ug/L	12.0		110	31-159		
2,6-Dinitrotoluene	12.1	8	ug/L	12.0		101	42-144		
Acenaphthylene	11.2	8	ug/L	12.0		93.5	35-122		
3-Nitroaniline	<8	8	ug/L	12.0		60.8	10-135		
Acenaphthene	10.9	8	ug/L	12.0		91.2	37-128		
2,4-Dinitrophenol	16.1	8	ug/L	12.0		134	31-164		
4-Nitrophenol	14.4	8	ug/L	12.0		120	11-175		
Dibenzofuran	11.0	8	ug/L	12.0		91.8	36-132		
2,4-Dinitrotoluene	12.1	8	ug/L	12.0		101	45-142		
2,3,4,6-Tetrachlorophenol	14.4	8	ug/L	12.0		120	22-159		
Pentachlorobenzene	9.7	8	ug/L	12.0		80.8	45-125		
1-Naphthylamine	<8	8	ug/L	12.0			10-152		Q3

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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1125 - 3520C BNA Cont Liq - EPA 8270C									
LCS (1IJ1125-BS1)				Prepared: 10/20/25 09:41 Analyzed: 10/29/25 10:13					
2-Naphthylamine	<8	8	ug/L	12.0		19-128			Q3
Diethyl Phthalate	12.7	8	ug/L	12.0	106	38-155			
Fluorene	11.5	8	ug/L	12.0	95.8	40-131			
4-Chlorophenyl Phenyl Ether	11.0	8	ug/L	12.0	91.3	36-130			
4-Nitroaniline	9.6	8	ug/L	12.0	80.1	10-142			
5-Nitro-o-toluidine	<8	8	ug/L	12.0	62.2	10-172			
4,6-Dinitro-2-methylphenol	13.5	8	ug/L	12.0	113	32-150			
N-Nitrosodiphenylamine	12.1	8	ug/L	12.0	101	10-154			
Diphenylamine	12.1	8	ug/L	12.0	101	10-166			
Azobenzene	12.2	8	ug/L	12.0	102	33-144			
Diallate	12.4	8	ug/L	12.0	103	47-152			
1,3,5-Trinitrobenzene	10.3	8	ug/L	12.0	85.6	51-151			
Phenacetin	11.4	8	ug/L	12.0	94.7	58-143			
4-Bromophenyl Phenyl Ether	11.7	8	ug/L	12.0	97.2	38-141			
4-Aminobiphenyl	<8	8	ug/L	12.0		10-178			Q3
Pentachlorophenol	15.4	8	ug/L	12.0	128	21-154			
Pronamide	10.6	8	ug/L	12.0	88.0	27-143			
Pentachloronitrobenzene (PCNB)	11.4	8	ug/L	12.0	95.4	51-163			
Phenanthrene	11.6	8	ug/L	12.0	97.0	42-141			
Anthracene	12.0	8	ug/L	12.0	100	43-136			
Di-n-butyl Phthalate	13.0	8	ug/L	12.0	108	44-158			
Methapyrilene	<8	8	ug/L	13.0	24.2	60-140			Q3
Fluoranthene	11.7	8	ug/L	12.0	97.2	44-145			
Isodrin	12.5	8	ug/L	12.0	104	54-126			
Chlorobenzilate	11.9	8	ug/L	12.0	99.4	25-164			
Pyrene	13.4	8	ug/L	12.0	112	37-155			
p-(Dimethylamino)azobenzene	10.7	8	ug/L	12.0	89.1	10-175			
Butyl Benzyl Phthalate	13.8	8	ug/L	12.0	115	35-163			
Benzo(a)anthracene	11.7	8	ug/L	12.0	97.2	40-142			
Chrysene	11.9	8	ug/L	12.0	99.1	45-142			
Bis(2-Ethylhexyl) Phthalate	14.7	6	ug/L	12.0	122	32-180			
Kepone	10.0	8	ug/L	12.0	83.3	10-147			
2-Acetylaminofluorene	12.4	8	ug/L	12.0	104	27-177			
Di-n-octyl Phthalate	14.3	8	ug/L	12.0	119	32-181			
Benzo(b)Fluoranthene	11.8	8	ug/L	12.0	98.8	40-160			
7,12-Dimethylbenz [a] anthracene	11.2	8	ug/L	12.0	93.8	46-128			
Benzo(k)Fluoranthene	12.1	8	ug/L	12.0	101	42-159			
Benzo(a)Pyrene	11.7	8	ug/L	12.0	97.8	45-143			
3-Methylcholanthrene	10.4	8	ug/L	12.0	86.2	10-164			
Dibenzo(a,h)anthracene	10.5	8	ug/L	12.0	87.2	30-159			
Indeno(1,2,3-cd)Pyrene	10.6	8	ug/L	12.0	88.0	31-156			

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CERTIFICATE OF ANALYSIS

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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1125 - 3520C BNA Cont Liq - EPA 8270C									
LCS (1IJ1125-BS1) Prepared: 10/20/25 09:41 Analyzed: 10/29/25 10:13									
Benzo(g,h,i)perylene	10.5	8	ug/L	12.0	87.2	26-158			
Surrogate: 2-Fluorophenol	19.6		ug/L	20.2	96.9	10-159			
Surrogate: Phenol-d6	19.9		ug/L	19.8	100	10-162			
Surrogate: Nitrobenzene-d5	18.8		ug/L	19.5	96.3	34-138			
Surrogate: 2-Fluorobiphenyl	17.4		ug/L	19.4	89.9	42-129			
Surrogate: 2,4,6-Tribromophenol	20.9		ug/L	20.5	102	10-156			
Surrogate: Terphenyl-d14	13.4		ug/L	12.2	110	46-154			
LCS Dup (1IJ1125-BS1) Prepared: 10/20/25 09:41 Analyzed: 10/29/25 10:38									
N-Nitrosodimethylamine	8.0	8	ug/L	12.0	67.1	12-122	27.4	27	R1
Methyl Methanesulfonate	8.3	8	ug/L	12.0	69.4	49-110	15.2	16	
N-Nitrosodiethylamine	9.9	8	ug/L	12.0	82.2	19-139	0.712	30	
N-Nitrosomethylethylamine	9.4	8	ug/L	12.0	78.5	13-158	5.56	30	
Ethyl Methanesulfonate	10.2	8	ug/L	12.0	84.8	50-110	3.19	17	
Phenol	11.9	8	ug/L	12.0	99.2	15-130	1.95	30	
Bis(2-Chloroethyl) Ether	10.9	8	ug/L	12.0	90.9	28-128	2.41	24	
2-Chlorophenol	11.7	8	ug/L	12.0	97.7	12-155	1.81	30	
Benzyl Alcohol	10.6	8	ug/L	12.0	88.1	13-143	21.9	30	
2-Methylphenol (o-Cresol)	12.1	8	ug/L	12.0	101	37-125	7.50	30	
Bis[2-Chloroisopropyl]ether	11.0	8	ug/L	12.0	91.3	31-130	0.733	26	
n-Nitroso-di-n-propylamine	11.5	8	ug/L	12.0	96.0	38-128	6.95	21	
N-Nitrosopyrrolidine	9.1	8	ug/L	12.0	76.1	22-143	14.8	30	
Acetophenone	10.7	8	ug/L	12.0	88.9	52-120	1.89	22	
o-Toluidine	<8	8	ug/L	12.0		10-110		30	Q3
(3 & 4)-Methylphenol	11.9	8	ug/L	12.0	99.1	35-129	3.47	30	
Hexachloroethane	9.4	8	ug/L	12.0	78.3	19-110	8.66	30	
Nitrobenzene	11.3	8	ug/L	12.0	94.2	26-148	1.75	30	
N-Nitrosopiperidine	9.0	8	ug/L	12.0	74.7	23-140	11.1	30	
Isophorone	12.7	8	ug/L	12.0	106	37-134	6.00	26	
2-Nitrophenol	11.5	8	ug/L	12.0	95.8	37-127	3.92	30	
2,4-Dimethylphenol	11.6	8	ug/L	12.0	96.8	36-131	2.72	30	
Bis (2-Chloroethoxy) Methane	11.5	8	ug/L	12.0	95.8	31-119	1.47	30	
2,4-Dichlorophenol	12.3	8	ug/L	12.0	103	32-148	2.01	30	
Naphthalene	10.4	8	ug/L	12.0	86.7	37-110	2.47	30	
4-Chloroaniline	<8	8	ug/L	12.0		10-110		30	Q3
2,6-Dichlorophenol	11.2	8	ug/L	12.0	93.2	28-154	1.60	30	
Hexachloropropene	<8	8	ug/L	12.0	66.0	10-110	5.41	30	
Hexachlorobutadiene	8.2	8	ug/L	12.0	68.3	21-110	13.8	30	
N-Nitrosodi-n-butylamine	<8	8	ug/L	12.0	45.5	24-135	62.2	30	R1
1,4-Phenylenediamine	<8	8	ug/L	12.0		10-103		30	Q3
4-Chloro-3-methylphenol	12.8	8	ug/L	12.0	107	32-146	3.00	30	
2-Methylnaphthalene	11.1	8	ug/L	12.0	92.2	36-113	1.55	26	
Isosafrole	10.0	8	ug/L	12.0	83.6	43-117	0.398	29	

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CERTIFICATE OF ANALYSIS

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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD RPD	RPD Limit	Notes
Batch 1IJ1125 - 3520C BNA Cont Liq - EPA 8270C									
LCS Dup (1IJ1125-BSD1)				Prepared: 10/20/25 09:41 Analyzed: 10/29/25 10:38					
1,2,4,5-Tetrachlorobenzene	8.6	8	ug/L	12.0	71.8	34-110	3.09	30	
Hexachlorocyclopentadiene	8.4	8	ug/L	12.0	70.1	10-110	1.80	30	
2,4,6-Trichlorophenol	12.3	8	ug/L	12.0	103	32-159	0.647	30	
2,4,5-Trichlorophenol	12.5	8	ug/L	12.0	104	35-164	5.51	30	
Safrole	10.0	8	ug/L	12.0	83.5	34-122	3.24	30	
2-Chloronaphthalene	10.9	8	ug/L	12.0	90.8	18-136	0.183	30	
2-Nitroaniline	12.0	8	ug/L	12.0	100	35-151	7.30	21	
1,4-Naphthoquinone	10.9	8	ug/L	12.0	90.8	32-188	7.84	30	
Dimethylphthalate	11.6	8	ug/L	12.0	96.3	39-147	2.48	22	
1,3-Dinitrobenzene	12.3	8	ug/L	12.0	102	30-163	0.163	26	
1,2-Dinitrobenzene	12.9	8	ug/L	12.0	108	31-159	2.14	26	
2,6-Dinitrotoluene	11.5	8	ug/L	12.0	96.0	42-144	4.91	20	
Acenaphthylene	10.9	8	ug/L	12.0	90.6	35-122	3.17	30	
3-Nitroaniline	<8	8	ug/L	12.0	25.1	10-135	83.1	30	R1
Acenaphthene	10.7	8	ug/L	12.0	89.4	37-128	1.94	30	
2,4-Dinitrophenol	15.7	8	ug/L	12.0	131	31-164	2.83	30	
4-Nitrophenol	13.5	8	ug/L	12.0	112	11-175	6.88	30	
Dibenzofuran	10.8	8	ug/L	12.0	90.0	36-132	2.02	30	
2,4-Dinitrotoluene	11.6	8	ug/L	12.0	97.0	45-142	3.96	20	
2,3,4,6-Tetrachlorophenol	14.5	8	ug/L	12.0	121	22-159	1.18	30	
Pentachlorobenzene	9.2	8	ug/L	12.0	76.9	45-125	4.86	30	
1-Naphthylamine	<8	8	ug/L	12.0		10-152		30	Q3
2-Naphthylamine	<8	8	ug/L	12.0		19-128		30	Q3
Diethyl Phthalate	12.4	8	ug/L	12.0	103	38-155	2.63	30	
Fluorene	11.0	8	ug/L	12.0	91.6	40-131	4.54	30	
4-Chlorophenyl Phenyl Ether	10.8	8	ug/L	12.0	89.9	36-130	1.56	22	
4-Nitroaniline	<8	8	ug/L	12.0	46.4	10-142	53.2	30	R1
5-Nitro-o-toluidine	<8	8	ug/L	12.0	34.6	10-172	57.1	30	R1
4,6-Dinitro-2-methylphenol	12.9	8	ug/L	12.0	108	32-150	4.84	30	
N-Nitrosodiphenylamine	11.0	8	ug/L	12.0	91.8	10-154	9.34	30	
Diphenylamine	11.0	8	ug/L	12.0	91.8	10-166	9.34	30	
Azobenzene	12.0	8	ug/L	12.0	100	33-144	1.49	27	
Diallate	11.3	8	ug/L	12.0	94.5	47-152	8.61	30	
1,3,5-Trinitrobenzene	9.7	8	ug/L	12.0	80.8	51-151	5.81	30	
Phenacetin	10.2	8	ug/L	12.0	85.2	58-143	10.5	24	
4-Bromophenyl Phenyl Ether	11.3	8	ug/L	12.0	94.5	38-141	2.78	17	
4-Aminobiphenyl	<8	8	ug/L	12.0		10-178		30	Q3
Pentachlorophenol	15.3	8	ug/L	12.0	127	21-154	0.652	30	
Pronamide	<8	8	ug/L	12.0		27-143		30	Q3
Pentachloronitrobenzene (PCNB)	10.9	8	ug/L	12.0	91.2	51-163	4.56	30	
Phenanthrene	11.2	8	ug/L	12.0	93.2	42-141	3.94	30	

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CERTIFICATE OF ANALYSIS

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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
Batch 1IJ1125 - 3520C BNA Cont Liq - EPA 8270C								

LCS Dup (1IJ1125-BSD1)

Prepared: 10/20/25 09:41 Analyzed: 10/29/25 10:38

Anthracene	11.4	8	ug/L	12.0	95.1	43-136	5.29	30	
Di-n-butyl Phthalate	12.2	8	ug/L	12.0	101	44-158	6.84	23	
Methapyrilene	<8	8	ug/L	13.0	12.6	60-140	62.8	30	Q3
Fluoranthene	10.8	8	ug/L	12.0	89.7	44-145	8.03	26	
Isodrin	11.6	8	ug/L	12.0	96.4	54-126	7.65	30	
Chlorobenzilate	10.6	8	ug/L	12.0	88.2	25-164	12.0	30	
Pyrene	13.0	8	ug/L	12.0	109	37-155	2.87	24	
p-(Dimethylamino)azobenzene	<8	8	ug/L	12.0	61.1	10-175	37.3	30	R1
Butyl Benzyl Phthalate	13.2	8	ug/L	12.0	110	35-163	4.96	21	
Benzo(a)anthracene	11.0	8	ug/L	12.0	91.3	40-142	6.27	20	
Chrysene	11.1	8	ug/L	12.0	92.6	45-142	6.78	30	
Bis(2-Ethylhexyl) Phthalate	15.9	6	ug/L	12.0	132	32-180	7.86	30	
Kepone	9.6	8	ug/L	12.0	80.3	10-147	3.67	30	
2-Acetylaminofluorene	11.5	8	ug/L	12.0	96.1	27-177	7.43	30	
Di-n-octyl Phthalate	13.9	8	ug/L	12.0	116	32-181	2.77	16	
Benzo(b)Fluoranthene	10.6	8	ug/L	12.0	88.8	40-160	10.7	24	
7,12-Dimethylbenz [a] anthracene	10.9	8	ug/L	12.0	91.2	46-128	2.79	30	
Benzo(k)Fluoranthene	10.8	8	ug/L	12.0	90.2	42-159	11.1	20	
Benzo(a)Pyrene	10.2	8	ug/L	12.0	85.2	45-143	13.8	30	
3-Methylcholanthrene	8.9	8	ug/L	12.0	73.8	10-164	15.5	30	
Dibenzo(a,h)anthracene	8.3	8	ug/L	12.0	69.2	30-159	22.9	26	
Indeno(1,2,3-cd)Pyrene	8.4	8	ug/L	12.0	69.8	31-156	23.0	30	
Benzo(g,h,i)perylene	8.2	8	ug/L	12.0	68.5	26-158	24.0	30	
Surrogate: 2-Fluorophenol	18.8		ug/L	20.2	92.8	10-159			
Surrogate: Phenol-d6	18.6		ug/L	19.8	94.2	10-162			
Surrogate: Nitrobenzene-d5	18.4		ug/L	19.5	94.6	34-138			
Surrogate: 2-Fluorobiphenyl	16.4		ug/L	19.4	84.7	42-129			
Surrogate: 2,4,6-Tribromophenol	19.5		ug/L	20.5	95.1	10-156			
Surrogate: Terphenyl-d14	12.7		ug/L	12.2	104	46-154			

Determination of Organophosphorus Insecticides	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
Batch 1IJ1063 - 3510C NP/OC Sep Fnl - EPA 8141								

Blank (1IJ1063-BLK1)

Prepared: 10/17/25 12:04 Analyzed: 10/27/25 11:07

O,O,O-Triethyl phosphorothioate	<0.4	0.4	ug/L					
Thionazin	<0.4	0.4	ug/L					
Phorate	<0.4	0.4	ug/L					
Dimethoate	<0.4	0.4	ug/L					
Disulfoton	<0.4	0.4	ug/L					

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Determination of Organophosphorus Insecticides	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1063 - 3510C NP/OC Sep Fnl - EPA 8141									
Blank (1IJ1063-BLK1)				Prepared: 10/17/25 12:04 Analyzed: 10/27/25 11:07					
Methyl Parathion	<0.4	0.4	ug/L						
Parathion	<0.4	0.4	ug/L						
Famphur	<0.4	0.4	ug/L						
Surrogate: 2-Nitro-m-xylene	9.00		ug/L	13.9		64.6 32-110			
LCS (1IJ1063-BS1)				Prepared: 10/17/25 12:04 Analyzed: 10/27/25 14:49					
O,O,O-Triethyl phosphorothioate	3.16	0.4	ug/L	4.00		79.1 31-156			
Thionazin	3.34	0.4	ug/L	4.00		83.5 60-128			
Phorate	2.96	0.4	ug/L	4.00		74.0 33-143			
Dimethoate	4.04	0.4	ug/L	4.00		101 60-172			
Disulfoton	2.54	0.4	ug/L	4.00		63.5 51-134			
Methyl Parathion	3.14	0.4	ug/L	4.00		78.6 65-121			
Parathion	2.97	0.4	ug/L	4.00		74.2 60-113			
Famphur	3.14	0.4	ug/L	4.00		78.6 65-133			
Surrogate: 2-Nitro-m-xylene	10.0		ug/L	13.9		72.2 32-110			
LCS Dup (1IJ1063-BSD1)				Prepared: 10/17/25 12:04 Analyzed: 10/27/25 15:33					
O,O,O-Triethyl phosphorothioate	3.41	0.4	ug/L	4.00		85.2 31-156	7.45	30	
Thionazin	3.68	0.4	ug/L	4.00		91.9 60-128	9.55	30	
Phorate	3.30	0.4	ug/L	4.00		82.4 33-143	10.7	30	
Dimethoate	4.91	0.4	ug/L	4.00		123 60-172	19.3	30	
Disulfoton	2.74	0.4	ug/L	4.00		68.5 51-134	7.58	30	
Methyl Parathion	3.54	0.4	ug/L	4.00		88.4 65-121	11.7	30	
Parathion	3.29	0.4	ug/L	4.00		82.2 60-113	10.2	26	
Famphur	3.54	0.4	ug/L	4.00		88.5 65-133	11.8	30	
Surrogate: 2-Nitro-m-xylene	10.8		ug/L	13.9		77.9 32-110			
Reference (1IJ1063-SRM1)				Prepared: 10/17/25 12:04 Analyzed: 10/27/25 16:18					
O,O,O-Triethyl phosphorothioate	3.90	0.4	ug/L	4.00		97.5 80-120			
Thionazin	3.81	0.4	ug/L	4.00		95.2 80-120			
Phorate	3.83	0.4	ug/L	4.00		95.8 80-120			
Dimethoate	5.40	0.4	ug/L	4.00		135 80-120			S
Disulfoton	3.63	0.4	ug/L	4.00		90.8 80-120			
Methyl Parathion	4.08	0.4	ug/L	4.00		102 80-120			
Parathion	3.68	0.4	ug/L	4.00		91.9 80-120			
Famphur	3.20	0.4	ug/L	4.00		80.0 80-120			
Surrogate: 2-Nitro-m-xylene	12.3		ug/L	13.9		88.7 32-110			
Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes

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Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 11J1064 - EPA 8151A - EPA 8151A									
Blank (11J1064-BLK1) Prepared: 10/17/25 12:11 Analyzed: 10/27/25 11:57									
2,4-D	<2.0	2.0	ug/L						
2,4,5-TP (Silvex)	<0.5	0.5	ug/L						
2,4,5-T	<0.5	0.5	ug/L						
Dinoseb	<0.5	0.5	ug/L						
Surrogate: 2,5-Dichlorobenzoic Acid	1.70		ug/L	1.81		93.8 49-174			
LCS (11J1064-BS1) Prepared: 10/17/25 12:11 Analyzed: 10/27/25 14:28									
2,4-D	<2.0	2.0	ug/L	1.00		71.4 38-135			
2,4,5-TP (Silvex)	0.50	0.5	ug/L	0.500		100 50-137			
2,4,5-T	<0.5	0.5	ug/L	0.500		95.9 49-157			
Dinoseb	1.11	0.5	ug/L	1.00		111 10-129			
Surrogate: 2,5-Dichlorobenzoic Acid	1.84		ug/L	1.81		102 49-174			
LCS Dup (11J1064-BSD1) Prepared: 10/17/25 12:11 Analyzed: 10/27/25 14:58									
2,4-D	<2.0	2.0	ug/L	1.00		86.7 38-135	19.4	30	
2,4,5-TP (Silvex)	0.56	0.5	ug/L	0.500		112 50-137	10.8	30	
2,4,5-T	0.54	0.5	ug/L	0.500		109 49-157	12.4	30	
Dinoseb	1.28	0.5	ug/L	1.00		128 10-129	13.9	30	
Surrogate: 2,5-Dichlorobenzoic Acid	1.87		ug/L	1.81		103 49-174			
Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 11J1062 - 3510C NP/OC Sep Fnl - EPA 8081A									
Blank (11J1062-BLK1) Prepared: 10/17/25 12:02 Analyzed: 10/22/25 16:48									
Alpha-BHC	<0.05	0.05	ug/L						
Gamma-BHC [Lindane]	<0.05	0.05	ug/L						
Beta-BHC	<0.05	0.05	ug/L						
Heptachlor	<0.05	0.05	ug/L						
Delta-BHC	<0.05	0.05	ug/L						
Aldrin	<0.05	0.05	ug/L						
Heptachlor Epoxide	<0.05	0.05	ug/L						
Endosulfan I	<0.05	0.05	ug/L						
4,4'-DDE	<0.05	0.05	ug/L						
Dieldrin	<0.05	0.05	ug/L						
Endrin	<0.05	0.05	ug/L						
4,4'-DDD	<0.05	0.05	ug/L						
Endosulfan II	<0.05	0.05	ug/L						
4,4'-DDT	<0.05	0.05	ug/L						
Endrin Aldehyde	<0.05	0.05	ug/L						
Endosulfan Sulfate	<0.05	0.05	ug/L						

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Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1062 - 3510C NP/OC Sep Fnl - EPA 8081A									
Blank (1IJ1062-BLK1)									
				Prepared: 10/17/25 12:02 Analyzed: 10/22/25 16:48					
Methoxychlor	<0.05	0.05	ug/L						
Chlordane	<0.10	0.10	ug/L						
Toxaphene	<0.20	0.20	ug/L						
Hexachlorobenzene	<0.05	0.05	ug/L						
Surrogate: Tetrachloro-m-xylene	0.370		ug/L	0.600		61.7 45-111			
LCS (1IJ1062-BS1)									
				Prepared: 10/17/25 12:02 Analyzed: 10/22/25 17:59					
Alpha-BHC	0.231	0.05	ug/L	0.250		92.5 60-125			
Gamma-BHC [Lindane]	0.240	0.05	ug/L	0.250		96.0 60-130			
Beta-BHC	0.250	0.05	ug/L	0.250		100 63-118			
Heptachlor	0.493	0.05	ug/L	0.250		197 67-130			Q2
Delta-BHC	0.230	0.05	ug/L	0.250		92.0 65-143			
Aldrin	0.203	0.05	ug/L	0.250		81.3 59-114			
Heptachlor Epoxide	0.241	0.05	ug/L	0.250		96.3 56-129			
Endosulfan I	0.256	0.05	ug/L	0.250		102 64-134			
4,4'-DDE	0.249	0.05	ug/L	0.250		99.4 66-128			
Dieldrin	0.255	0.05	ug/L	0.250		102 62-121			
Endrin	0.272	0.05	ug/L	0.250		109 27-177			
4,4'-DDD	0.253	0.05	ug/L	0.250		101 64-131			
Endosulfan II	0.257	0.05	ug/L	0.250		103 68-130			
4,4'-DDT	0.236	0.05	ug/L	0.250		94.6 64-145			
Endrin Aldehyde	0.233	0.05	ug/L	0.250		93.1 50-135			
Endosulfan Sulfate	0.251	0.05	ug/L	0.250		100 72-121			
Methoxychlor	0.240	0.05	ug/L	0.250		96.1 60-157			
Surrogate: Tetrachloro-m-xylene	0.382		ug/L	0.600		63.7 45-111			
LCS Dup (1IJ1062-BSD1)									
				Prepared: 10/17/25 12:02 Analyzed: 10/22/25 18:13					
Alpha-BHC	0.202	0.05	ug/L	0.250		80.9 60-125	13.3	30	
Gamma-BHC [Lindane]	0.212	0.05	ug/L	0.250		84.8 60-130	12.4	30	
Beta-BHC	0.223	0.05	ug/L	0.250		89.0 63-118	11.7	30	
Heptachlor	0.452	0.05	ug/L	0.250		181 67-130	8.73	30	Q2
Delta-BHC	0.199	0.05	ug/L	0.250		79.7 65-143	14.3	30	
Aldrin	0.182	0.05	ug/L	0.250		72.8 59-114	11.0	30	
Heptachlor Epoxide	0.212	0.05	ug/L	0.250		84.9 56-129	12.6	30	
Endosulfan I	0.223	0.05	ug/L	0.250		89.1 64-134	13.8	30	
4,4'-DDE	0.221	0.05	ug/L	0.250		88.4 66-128	11.8	30	
Dieldrin	0.223	0.05	ug/L	0.250		89.1 62-121	13.7	30	
Endrin	0.235	0.05	ug/L	0.250		94.1 27-177	14.3	30	
4,4'-DDD	0.222	0.05	ug/L	0.250		88.6 64-131	13.1	30	
Endosulfan II	0.223	0.05	ug/L	0.250		89.1 68-130	14.3	30	
4,4'-DDT	0.206	0.05	ug/L	0.250		82.5 64-145	13.7	30	
Endrin Aldehyde	0.202	0.05	ug/L	0.250		80.8 50-135	14.2	30	

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Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes
Batch 11J1062 - 3510C NP/OC Sep Fnl - EPA 8081A										
LCS Dup (11J1062-BSD1)				Prepared: 10/17/25 12:02 Analyzed: 10/22/25 18:13						
Endosulfan Sulfate	0.225	0.05	ug/L	0.250		89.9	72-121	11.1	30	
Methoxychlor	0.212	0.05	ug/L	0.250		84.8	60-157	12.5	30	
Surrogate: Tetrachloro-m-xylene	0.360		ug/L	0.600		59.9	45-111			
Reference (11J1062-SRM1)				Prepared: 10/17/25 12:02 Analyzed: 10/22/25 18:27						
Alpha-BHC	0.261	0.05	ug/L	0.250		105	80-120			
Gamma-BHC [Lindane]	0.266	0.05	ug/L	0.250		106	80-120			
Beta-BHC	0.262	0.05	ug/L	0.250		105	80-120			
Heptachlor	0.273	0.05	ug/L	0.250		109	80-120			
Delta-BHC	0.248	0.05	ug/L	0.250		99.3	80-120			
Aldrin	0.257	0.05	ug/L	0.250		103	80-120			
Heptachlor Epoxide	0.245	0.05	ug/L	0.250		97.9	80-120			
Endosulfan I	0.259	0.05	ug/L	0.250		103	80-120			
4,4`-DDE	0.263	0.05	ug/L	0.250		105	80-120			
Dieldrin	0.253	0.05	ug/L	0.250		101	80-120			
Endrin	0.252	0.05	ug/L	0.250		101	80-120			
4,4`-DDD	0.275	0.05	ug/L	0.250		110	80-120			
Endosulfan II	0.250	0.05	ug/L	0.250		99.9	80-120			
4,4`-DDT	0.210	0.05	ug/L	0.250		83.9	80-120			
Endrin Aldehyde	0.263	0.05	ug/L	0.250		105	80-120			
Endosulfan Sulfate	0.249	0.05	ug/L	0.250		99.6	80-120			
Methoxychlor	0.204	0.05	ug/L	0.250		81.5	80-120			
Hexachlorobenzene	0.246	0.05	ug/L	0.250		98.5	80-120			
Surrogate: Tetrachloro-m-xylene	0.542		ug/L	0.600		90.4	45-111			
Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes
Batch 11J1061 - 3510C NP/OC Sep Fnl - EPA 8082A										
Blank (11J1061-BLK1)				Prepared: 10/17/25 12:00 Analyzed: 10/22/25 16:48						
Arochlor 1016	<0.20	0.20	ug/L							
Arochlor 1221	<0.20	0.20	ug/L							
Arochlor 1232	<0.20	0.20	ug/L							
Arochlor 1242	<0.20	0.20	ug/L							
Arochlor 1248	<0.20	0.20	ug/L							
Arochlor 1254	<0.20	0.20	ug/L							
Arochlor 1260	<0.20	0.20	ug/L							
Surrogate: Tetrachloro-m-xylene	0.513		ug/L	0.600		85.6	50-116			
Surrogate: Decachlorobiphenyl	0.635		ug/L	0.600		106	38-122			

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Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Polychlorinated Biphenyls (PCB)										
Batch 1IJ1061 - 3510C NP/OC Sep Fnl - EPA 8082A										
LCS (1IJ1061-BS1)				Prepared: 10/17/25 12:00 Analyzed: 10/22/25 18:41						
Arochlor 1016	2.753	0.20	ug/L	2.60		106	54-124			
Arochlor 1260	2.668	0.20	ug/L	2.60		103	66-138			
Surrogate: Tetrachloro-m-xylene	0.519		ug/L	0.600		86.5	50-116			
Surrogate: Decachlorobiphenyl	0.557		ug/L	0.600		92.8	38-122			
LCS Dup (1IJ1061-BSD1)				Prepared: 10/17/25 12:00 Analyzed: 10/22/25 18:55						
Arochlor 1016	2.855	0.20	ug/L	2.60		110	54-124	3.63	20	
Arochlor 1260	2.927	0.20	ug/L	2.60		113	66-138	9.25	24	
Surrogate: Tetrachloro-m-xylene	0.536		ug/L	0.600		89.3	50-116			
Surrogate: Decachlorobiphenyl	0.620		ug/L	0.600		103	38-122			
Reference (1IJ1061-SRM1)				Prepared: 10/17/25 12:00 Analyzed: 10/22/25 19:09						
Arochlor 1016	3.011	0.20	ug/L	2.60		116	80-120			
Arochlor 1260	3.064	0.20	ug/L	2.60		118	80-120			
Surrogate: Tetrachloro-m-xylene	0.564		ug/L	0.600		94.0	50-116			
Surrogate: Decachlorobiphenyl	0.576		ug/L	0.600		96.0	38-122			
Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Conventional Chemistry Parameters										
Batch 1IJ0999 - Wet Chem Preparation - SM 2320 B-2011										
Blank (1IJ0999-BLK1)				Prepared & Analyzed: 10/16/25 13:12						
Alkalinity, as CaCO3	<10	10	mg/L							
LCS (1IJ0999-BS1)				Prepared & Analyzed: 10/16/25 13:12						
Alkalinity, as CaCO3	48.6	10	mg/L	50.0		97.3	84-116			
Matrix Spike (1IJ0999-MS1)				Source: 1IJ1422-04 Prepared & Analyzed: 10/16/25 13:12						
Alkalinity, as CaCO3	200	10	mg/L	50.0	162	75.6	70-130			
Matrix Spike Dup (1IJ0999-MSD1)				Source: 1IJ1422-04 Prepared & Analyzed: 10/16/25 13:12						
Alkalinity, as CaCO3	198	10	mg/L	50.0	162	71.0	70-130	1.16	10	
Batch 1IJ1132 - Wet Chem Preparation - EPA 376.2										
Blank (1IJ1132-BLK1)				Prepared: 10/20/25 10:39 Analyzed: 10/20/25 16:48						
Sulfide, total	<0.10	0.10	mg/L							
LCS (1IJ1132-BS1)				Prepared: 10/20/25 10:39 Analyzed: 10/20/25 16:48						
Sulfide, total	<0.10	0.10	mg/L	0.061		115	56-118			
Matrix Spike (1IJ1132-MS1)				Source: 1IJ1239-01 Prepared: 10/20/25 10:39 Analyzed: 10/20/25 16:48						
Sulfide, total	<0.10	0.10	mg/L	0.061	ND	144	50-150			
Matrix Spike Dup (1IJ1132-MSD1)				Source: 1IJ1239-01 Prepared: 10/20/25 10:39 Analyzed: 10/20/25 16:48						



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Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes	
Batch 1IJ1132 - Wet Chem Preparation - EPA 376.2											
Matrix Spike Dup (1IJ1132-MSD1)	Source: 1IJ1239-01		Prepared: 10/20/25 10:39 Analyzed: 10/20/25 16:48								
Sulfide, total	0.114	0.10	mg/L	0.061	ND	186	50-150	25.5	30	M1	
Batch 1IJ1215 - Wet Chem Preparation - EPA 9014											
Blank (1IJ1215-BLK1)	Prepared & Analyzed: 10/21/25 13:07										
Cyanide, total	<0.010	0.010	mg/L								
LCS (1IJ1215-BS1)	Prepared & Analyzed: 10/21/25 13:07										
Cyanide, total	0.0705	0.020	mg/L	0.0600		118	64-125				
Matrix Spike (1IJ1215-MS1)	Source: 1IJ1387-04		Prepared: 10/21/25 13:07 Analyzed: 10/30/25 10:39								
Cyanide, total	0.0341	0.010	mg/L	0.0600	ND	56.8	64-134			M2	
Matrix Spike Dup (1IJ1215-MSD1)	Source: 1IJ1387-04		Prepared: 10/21/25 13:07 Analyzed: 10/30/25 10:39								
Cyanide, total	0.0382	0.010	mg/L	0.0600	ND	63.6	64-134	11.3	25	M2	
Batch 1IJ1249 - Wet Chem Preparation - SM 4500-H+ B-2011											
Duplicate (1IJ1249-DUP1)	Source: 1IJ1387-04		Prepared & Analyzed: 10/21/25 16:31								
pH	6.3	0.5	pH	6.3				0.0159	10		
Reference (1IJ1249-SRM1)	Prepared & Analyzed: 10/21/25 16:31										
pH	7.0	0.5	pH	7.00		99.9	98.6-101.4				
Reference (1IJ1249-SRM2)	Prepared & Analyzed: 10/21/25 16:31										
pH	7.0	0.5	pH	7.00		100	98.6-101.4				
Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes	
Batch 1IJ0932 - EPA 3005A Total Recoverable Metals - EPA 6020A											
Blank (1IJ0932-BLK1)	Prepared: 10/15/25 15:58 Analyzed: 10/16/25 18:06										
Antimony	<0.0010	0.0010	mg/L								B
Arsenic	<0.0020	0.0020	mg/L								
Barium	<0.0010	0.0010	mg/L								
Beryllium	<0.0005	0.0005	mg/L								
Cadmium	<0.0002	0.0002	mg/L								
Chromium	<0.0010	0.0010	mg/L								B
Cobalt	<0.0005	0.0005	mg/L								
Copper	<0.0050	0.0050	mg/L								B
Lead	<0.0010	0.0010	mg/L								
Nickel	<0.0050	0.0050	mg/L								
Selenium	<0.0020	0.0020	mg/L								
Silver	<0.0050	0.0050	mg/L								
Thallium	<0.0005	0.0005	mg/L								
Tin	<0.0050	0.0050	mg/L								
Vanadium	<0.0020	0.0020	mg/L								

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Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 11J0932 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Blank (11J0932-BLK1)				Prepared: 10/15/25 15:58 Analyzed: 10/16/25 18:06						
Zinc	<0.0050	0.0050	mg/L							B
LCS (11J0932-BS1)				Prepared: 10/15/25 15:58 Analyzed: 10/16/25 18:08						
Antimony	0.102	0.0010	mg/L	0.100		102	80-120			
Arsenic	0.0984	0.0020	mg/L	0.100		98.4	80-120			
Barium	0.107	0.0010	mg/L	0.100		107	80-120			
Beryllium	0.105	0.0005	mg/L	0.100		105	80-120			
Cadmium	0.0994	0.0002	mg/L	0.100		99.4	80-120			
Chromium	0.108	0.0010	mg/L	0.100		108	80-120			
Cobalt	0.107	0.0005	mg/L	0.100		107	80-120			
Copper	0.101	0.0050	mg/L	0.100		101	80-120			
Lead	0.0984	0.0010	mg/L	0.100		98.4	80-120			
Nickel	0.0962	0.0050	mg/L	0.100		96.2	80-120			
Selenium	0.0984	0.0020	mg/L	0.100		98.4	80-120			
Silver	0.106	0.0050	mg/L	0.100		106	80-120			
Thallium	0.102	0.0005	mg/L	0.100		102	80-120			
Tin	0.102	0.0050	mg/L	0.100		102	80-120			
Vanadium	0.111	0.0020	mg/L	0.100		111	80-120			
Zinc	0.103	0.0050	mg/L	0.100		103	80-120			
Matrix Spike (11J0932-MS1)				Source: 11J1317-01		Prepared: 10/15/25 15:58 Analyzed: 10/16/25 18:18				
Antimony	0.0590	0.0010	mg/L	0.100	0.0014	57.6	75-125			M2
Arsenic	0.138	0.0020	mg/L	0.100	0.0328	105	75-125			
Barium	3.13	0.0010	mg/L	0.100	2.73	402	75-125			M6
Beryllium	0.149	0.0005	mg/L	0.100	0.0446	105	75-125			
Cadmium	0.117	0.0002	mg/L	0.100	0.0147	102	75-125			
Chromium	0.154	0.0010	mg/L	0.100	0.0462	108	75-125			
Cobalt	0.295	0.0005	mg/L	0.100	0.192	103	75-125			
Copper	0.174	0.0050	mg/L	0.100	0.0716	102	75-125			
Lead	0.159	0.0010	mg/L	0.100	0.0412	117	75-125			
Nickel	0.641	0.0050	mg/L	0.100	0.511	129	75-125			M6
Selenium	0.1037	0.0020	mg/L	0.100	0.0030	101	75-125			
Silver	0.0997	0.0050	mg/L	0.100	ND	99.7	75-125			
Thallium	0.113	0.0005	mg/L	0.100	0.0004	113	75-125			
Tin	0.105	0.0050	mg/L	0.100	0.0014	103	75-125			
Vanadium	0.255	0.0020	mg/L	0.100	0.140	115	75-125			
Zinc	1.89	0.0050	mg/L	0.100	1.69	196	75-125			M6
Matrix Spike Dup (11J0932-MSD1)				Source: 11J1317-01		Prepared: 10/15/25 15:58 Analyzed: 10/16/25 18:21				
Antimony	0.0476	0.0010	mg/L	0.100	0.0014	46.2	75-125	21.4	20	M2
Arsenic	0.142	0.0020	mg/L	0.100	0.0328	109	75-125	2.59	20	
Barium	3.35	0.0010	mg/L	0.100	2.73	623	75-125	6.82	20	M6
Beryllium	0.145	0.0005	mg/L	0.100	0.0446	100	75-125	3.17	20	
Cadmium	0.116	0.0002	mg/L	0.100	0.0147	101	75-125	0.772	20	
Chromium	0.168	0.0010	mg/L	0.100	0.0462	121	75-125	8.27	20	
Cobalt	0.293	0.0005	mg/L	0.100	0.192	101	75-125	0.658	20	

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Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ0932 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Matrix Spike Dup (1IJ0932-MSD1) Source: 1IJ1317-01 Prepared: 10/15/25 15:58 Analyzed: 10/16/25 18:21										
Copper	0.181	0.0050	mg/L	0.100	0.0716	109	75-125	4.12	20	
Lead	0.162	0.0010	mg/L	0.100	0.0412	121	75-125	2.28	20	
Nickel	0.627	0.0050	mg/L	0.100	0.511	116	75-125	2.12	20	
Selenium	0.1013	0.0020	mg/L	0.100	0.0030	98.3	75-125	2.32	20	
Silver	0.0964	0.0050	mg/L	0.100	ND	96.4	75-125	3.45	20	
Thallium	0.105	0.0005	mg/L	0.100	0.0004	104	75-125	7.96	20	
Tin	0.100	0.0050	mg/L	0.100	0.0014	98.8	75-125	4.38	20	
Vanadium	0.276	0.0020	mg/L	0.100	0.140	136	75-125	7.94	20	M1
Zinc	1.90	0.0050	mg/L	0.100	1.69	206	75-125	0.532	20	M6
Post Spike (1IJ0932-PS1) Source: 1IJ1317-01 Prepared: 10/15/25 15:58 Analyzed: 10/16/25 18:23										
Antimony	0.0226		mg/L	0.0200	0.0014	106	80-120			
Arsenic	0.0518		mg/L	0.0200	0.0328	94.9	80-120			
Barium	2.78		mg/L	0.0200	2.73	271	80-120			M6
Beryllium	0.0644		mg/L	0.0200	0.0446	98.7	80-120			
Cadmium	0.0342		mg/L	0.0200	0.0147	97.8	80-120			
Chromium	0.0643		mg/L	0.0200	0.0462	90.8	80-120			
Cobalt	0.208		mg/L	0.0200	0.192	76.0	80-120			M2
Copper	0.0881		mg/L	0.0200	0.0716	82.5	80-120			
Lead	0.0589		mg/L	0.0200	0.0412	88.5	80-120			
Nickel	0.512		mg/L	0.0200	0.511	3.88	80-120			M6
Selenium	0.0227		mg/L	0.0200	0.0030	98.5	80-120			
Silver	0.0192		mg/L	0.0200	0.0004	94.3	80-120			
Thallium	0.0199		mg/L	0.0200	0.0004	97.2	80-120			
Tin	0.0230		mg/L	0.0200	0.0014	108	75-125			
Vanadium	0.153		mg/L	0.0200	0.140	66.1	80-120			M2
Zinc	1.66		mg/L	0.0200	1.69	NR	80-120			M6
Batch 1IJ1024 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Blank (1IJ1024-BLK1) Prepared: 10/16/25 15:20 Analyzed: 10/17/25 19:13										
Antimony	<0.0010	0.0010	mg/L							B
Arsenic	<0.0020	0.0020	mg/L							
Barium	<0.0010	0.0010	mg/L							
Beryllium	<0.0005	0.0005	mg/L							
Cadmium	<0.0002	0.0002	mg/L							
Chromium	<0.0010	0.0010	mg/L							B
Cobalt	<0.0005	0.0005	mg/L							
Copper	<0.0050	0.0050	mg/L							
Lead	<0.0010	0.0010	mg/L							
Nickel	<0.0050	0.0050	mg/L							
Selenium	<0.0020	0.0020	mg/L							
Silver	<0.0050	0.0050	mg/L							
Thallium	<0.0005	0.0005	mg/L							
Tin	<0.0050	0.0050	mg/L							

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Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1024 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Blank (1IJ1024-BLK1)			Prepared: 10/16/25 15:20 Analyzed: 10/17/25 19:13							
Vanadium	<0.0020	0.0020	mg/L							
Zinc	<0.0050	0.0050	mg/L							B
LCS (1IJ1024-BS1)			Prepared: 10/16/25 15:20 Analyzed: 10/17/25 19:16							
Antimony	0.108	0.0010	mg/L	0.100		108	80-120			
Arsenic	0.103	0.0020	mg/L	0.100		103	80-120			
Barium	0.113	0.0010	mg/L	0.100		113	80-120			
Beryllium	0.104	0.0005	mg/L	0.100		104	80-120			
Cadmium	0.105	0.0002	mg/L	0.100		105	80-120			
Chromium	0.111	0.0010	mg/L	0.100		111	80-120			
Cobalt	0.116	0.0005	mg/L	0.100		116	80-120			
Copper	0.103	0.0050	mg/L	0.100		103	80-120			
Lead	0.111	0.0010	mg/L	0.100		111	80-120			
Nickel	0.105	0.0050	mg/L	0.100		105	80-120			
Selenium	0.1118	0.0020	mg/L	0.100		112	80-120			
Silver	0.115	0.0050	mg/L	0.100		115	80-120			
Thallium	0.117	0.0005	mg/L	0.100		117	80-120			
Tin	0.109	0.0050	mg/L	0.100		109	80-120			
Vanadium	0.117	0.0020	mg/L	0.100		117	80-120			
Zinc	0.111	0.0050	mg/L	0.100		111	80-120			
Matrix Spike (1IJ1024-MS1)			Source: 1IJ1387-05	Prepared: 10/16/25 15:20 Analyzed: 10/17/25 19:21						
Antimony	0.112	0.0010	mg/L	0.100	0.0009	111	75-125			
Arsenic	0.102	0.0020	mg/L	0.100	ND	102	75-125			
Barium	0.158	0.0010	mg/L	0.100	0.0405	118	75-125			
Beryllium	0.102	0.0005	mg/L	0.100	ND	102	75-125			
Cadmium	0.105	0.0002	mg/L	0.100	0.0002	105	75-125			
Chromium	0.110	0.0010	mg/L	0.100	0.0007	109	75-125			
Cobalt	0.113	0.0005	mg/L	0.100	0.0010	112	75-125			
Copper	0.101	0.0050	mg/L	0.100	0.0023	98.7	75-125			
Lead	0.112	0.0010	mg/L	0.100	ND	112	75-125			
Nickel	0.112	0.0050	mg/L	0.100	0.0132	98.7	75-125			
Selenium	0.1089	0.0020	mg/L	0.100	ND	109	75-125			
Silver	0.117	0.0050	mg/L	0.100	ND	117	75-125			
Thallium	0.119	0.0005	mg/L	0.100	0.00007	119	75-125			
Tin	0.114	0.0050	mg/L	0.100	ND	114	75-125			
Vanadium	0.119	0.0020	mg/L	0.100	ND	119	75-125			
Zinc	0.122	0.0050	mg/L	0.100	0.0232	98.9	75-125			
Matrix Spike Dup (1IJ1024-MSD1)			Source: 1IJ1387-05	Prepared: 10/16/25 15:20 Analyzed: 10/17/25 19:28						
Antimony	0.108	0.0010	mg/L	0.100	0.0009	107	75-125	4.28	20	
Arsenic	0.0996	0.0020	mg/L	0.100	ND	99.6	75-125	2.38	20	
Barium	0.153	0.0010	mg/L	0.100	0.0405	113	75-125	3.21	20	
Beryllium	0.0995	0.0005	mg/L	0.100	ND	99.5	75-125	2.31	20	
Cadmium	0.102	0.0002	mg/L	0.100	0.0002	101	75-125	3.42	20	
Chromium	0.106	0.0010	mg/L	0.100	0.0007	105	75-125	3.45	20	

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Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1IJ1024 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Matrix Spike Dup (1IJ1024-MSD1)		Source: 1IJ1387-05		Prepared: 10/16/25 15:20 Analyzed: 10/17/25 19:28						
Cobalt	0.106	0.0005	mg/L	0.100	0.0010	105	75-125	6.54	20	
Copper	0.0978	0.0050	mg/L	0.100	0.0023	95.4	75-125	3.32	20	
Lead	0.108	0.0010	mg/L	0.100	ND	108	75-125	3.32	20	
Nickel	0.108	0.0050	mg/L	0.100	0.0132	95.1	75-125	3.24	20	
Selenium	0.1075	0.0020	mg/L	0.100	ND	108	75-125	1.31	20	
Silver	0.111	0.0050	mg/L	0.100	ND	111	75-125	4.55	20	
Thallium	0.115	0.0005	mg/L	0.100	0.00007	115	75-125	3.11	20	
Tin	0.109	0.0050	mg/L	0.100	ND	109	75-125	4.03	20	
Vanadium	0.117	0.0020	mg/L	0.100	ND	117	75-125	1.98	20	
Zinc	0.120	0.0050	mg/L	0.100	0.0232	96.9	75-125	1.67	20	
Post Spike (1IJ1024-PS1)		Source: 1IJ1387-05		Prepared: 10/16/25 15:20 Analyzed: 10/17/25 19:31						
Antimony	0.0189		mg/L	0.0200	0.0009	90.1	80-120			
Arsenic	0.0170		mg/L	0.0200	0.0004	83.3	80-120			
Barium	0.0571		mg/L	0.0200	0.0405	83.3	80-120			
Beryllium	0.0187		mg/L	0.0200	0.000002	93.5	80-120			
Cadmium	0.0186		mg/L	0.0200	0.0002	91.6	80-120			
Chromium	0.0194		mg/L	0.0200	0.0007	93.7	80-120			
Cobalt	0.0191		mg/L	0.0200	0.0010	90.7	80-120			
Copper	0.0194		mg/L	0.0200	0.0023	85.4	80-120			
Lead	0.0194		mg/L	0.0200	0.00005	97.0	80-120			
Nickel	0.0302		mg/L	0.0200	0.0132	85.0	80-120			
Selenium	0.0202		mg/L	0.0200	0.000007	101	80-120			
Silver	0.0153		mg/L	0.0200	0.0002	75.6	80-120			M2
Thallium	0.0199		mg/L	0.0200	0.00007	98.9	80-120			
Tin	0.0203		mg/L	0.0200	0.0003	99.5	75-125			
Vanadium	0.0195		mg/L	0.0200	-0.00001	97.5	80-120			
Zinc	0.0398		mg/L	0.0200	0.0232	82.9	80-120			
Batch 1IJ1552 - EPA 7470A Hg Water - EPA 7470A										
Blank (1IJ1552-BLK1)		Prepared: 10/27/25 15:36 Analyzed: 10/28/25 16:06								
Mercury	<0.00050	0.00050	mg/L							
LCS (1IJ1552-BS1)		Prepared: 10/27/25 15:36 Analyzed: 10/28/25 16:08								
Mercury	0.00240	0.00050	mg/L	0.00250		96.1	80-120			
Matrix Spike (1IJ1552-MS1)		Source: 1IJ1317-01		Prepared: 10/27/25 15:36 Analyzed: 10/28/25 16:13						
Mercury	0.00425	0.00200	mg/L	0.00250	0.00118	123	75-125			
Matrix Spike Dup (1IJ1552-MSD1)		Source: 1IJ1317-01		Prepared: 10/27/25 15:36 Analyzed: 10/28/25 16:15						
Mercury	0.00450	0.00200	mg/L	0.00250	0.00118	133	75-125	5.60	20	M1

Batch Quality Control Summary: Microbac Laboratories Inc., - Marietta, OH



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Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch B5J1378 - 5021 - EPA RSK-175									
Blank (B5J1378-BLK1) Prepared & Analyzed: 10/21/25 15:20									
Methane	<5.00	5.00	ug/L						
Ethene	<5.00	5.00	ug/L						
Ethane	<5.00	5.00	ug/L						
Propane	<5.00	5.00	ug/L						
n-Butane	<5.00	5.00	ug/L						
LCS (B5J1378-BS1) Prepared & Analyzed: 10/21/25 17:39									
Methane	122	5.00	ug/L	114.1884		107	85-115		
Ethene	214	5.00	ug/L	199.6873		107	85-115		
Ethane	232	5.00	ug/L	213.9965		108	85-115		
Propane	359	5.00	ug/L	313.9185		114	85-115		
n-Butane	518	5.00	ug/L	413.7764		125	85-115		Q
LCS Dup (B5J1378-BSD1) Prepared: 10/21/25 17:53 Analyzed: 10/21/25 18:07									
Methane	242	5.00	ug/L	228.3768		106	85-115	65.9	40 R1
Ethene	434	5.00	ug/L	399.3747		109	85-115	68.0	40 R1
Ethane	482	5.00	ug/L	427.993		113	85-115	70.1	40 R1
Propane	750	5.00	ug/L	627.8369		119	85-115	70.6	40 Q
n-Butane	1010	5.00	ug/L	827.5527		122	85-115	64.4	40 Q, Q7
Batch B5J1640 - 5021 - EPA RSK-175									
Blank (B5J1640-BLK1) Prepared & Analyzed: 10/24/25 13:06									
Methane	<5.00	5.00	ug/L						
Ethene	<5.00	5.00	ug/L						
Ethane	<5.00	5.00	ug/L						
Propane	<5.00	5.00	ug/L						
n-Butane	7.45	5.00	ug/L						Q
LCS (B5J1640-BS1) Prepared & Analyzed: 10/24/25 13:21									
Methane	129	5.00	ug/L	114.1884		113	85-115		
Ethene	192	5.00	ug/L	199.6873		96.3	85-115		
Ethane	203	5.00	ug/L	213.9965		95.0	85-115		
Propane	308	5.00	ug/L	313.9185		98.1	85-115		
n-Butane	410	5.00	ug/L	413.7764		99.1	85-115		
LCS Dup (B5J1640-BSD1) Prepared & Analyzed: 10/24/25 16:53									
Methane	56.9	5.00	ug/L	57.0942		99.7	85-115	77.4	40 R1
Ethene	96.4	5.00	ug/L	99.84367		96.5	85-115	66.5	40 R1
Ethane	102	5.00	ug/L	106.9982		95.2	85-115	66.5	40 R1
Propane	145	5.00	ug/L	156.9592		92.6	85-115	71.8	40 R1
n-Butane	182	5.00	ug/L	206.8882		87.8	85-115	77.1	40 R1

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Definitions

B:	The target analyte was detected in the blank at or above the method acceptance criteria.
D3:	Dilution was performed due to high target analyte concentration.
H4:	The test was performed outside of the EPA recommended holding time of 15 minutes.
M1:	Matrix spike recovery is above acceptance limits.
M2:	Matrix spike recovery is below acceptance limits.
M6:	Matrix spike recovery is outside of acceptance limits. The analyte concentration is greater than 4X the spiking level.
Q:	One or more quality control criteria failed.
Q2:	LCS recovery is above acceptance limits.
Q3:	LCS recovery is below acceptance limits. The reported value is estimated.
Q7:	CCV recovery is above acceptance limits.
R1:	Duplicate RPD is outside acceptance criteria.
RL:	Reporting Limit
RPD:	Relative Percent Difference
S:	Spike recovery outside of acceptance limits.
S1:	Surrogate recovery is above acceptance limits.
S2:	Surrogate recovery is below acceptance limits.
S4:	Surrogate recovery can not be accurately measured due to matrix interference.

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 5.9°C

Cooler Inspection Checklist

Custody Seals	No	Containers Intact	Yes
COC/Labels Agree	Yes	Preservation Confirmed	No
Received On Ice	Yes		

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.

Reviewed and Approved By:

Heather Murphy

Customer Relationship Specialist
heather.murphy@microbac.com
10/31/25 10:26

CHAIN OF CUSTODY RECORD



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Newton, IA 50208
Phone: 641-792-8451

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Printed: 9/29/2025 8:03:09AM

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SITE INFORMATION

Sampler: TODD WHIPPLEProject: **Fayette Co. Landfill-New Regs**
6040

REPORT TO

Todd Whipple
HLW Engineering
204 West Broad St
Story City, IA 50248

INVOICE TO

Joan Swenka
Fayette County Landfill
10275 Kornhill Road
Fayette, IA 52142

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___HLW Engineering
PM: Heather MurphyTemperature: 5-9°C

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	# Containers	Analyses	Lab Sample Number
01-001	MW-12	Aqueous	GRAB	10/13/25	15:28	7	Indfll-app1-metals-6020dfill-app1-voc-group	01
02-001	MW-21	Aqueous	GRAB	10/13/25	15:45	1	Indfll-app1-metals-6020dfill-app1-voc-group	02
03-001	MW-17	Aqueous	GRAB	10/13/25	15:54	7	Indfll-app1-metals-6020dfill-app1-voc-group	03
04-001	MW-5	Aqueous	GRAB	10/13/25	13:00	22	alk-caco3-2320 Indfll-app2-org ph-4500 Indfll-app2-inorg-6020 permegas-rsk-175	04
05-001	MW-7	Aqueous	GRAB	10/13/25	13:55	18	Indfll-app2-org Indfll-app2-inorg-6020	05
06-001	MW-9	Aqueous	GRAB	10/13/25	17:58	7	Indfll-app1-metals-6020dfill-app1-voc-group	06
07-001	MW-16	Aqueous	GRAB	10/13/25	14:33	7	Indfll-app1-metals-6020dfill-app1-voc-group	07
08-001	MW-24	Aqueous	GRAB	10/13/25	17:30	7	Indfll-app1-metals-6020dfill-app1-voc-group	08
09-001	MW-25	Aqueous	GRAB	10/13/25	17:43	7	Indfll-app1-metals-6020dfill-app1-voc-group	09

Relinquished By

Date/Time

Relinquished By

Date/Time

Received By

Date/Time

Received for Lab By

Date/Time

Remarks:

CHAIN OF CUSTODY RECORD



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Phone: 641-792-8451

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SITE INFORMATION

Sampler: TODD WHIPPLEProject: **Fayette Co. Landfill-New Regs**
6040

REPORT TO

Todd Whipple
HLW Engineering
204 West Broad St
Story City, IA 50248

INVOICE TO

Joan Swenka
Fayette County Landfill
10275 Kornhill Road
Fayette, IA 52142

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY



1 I J 1 3 8 7

HLW Engineering
PM: Heather MurphyTemperature: 5-9°C °C

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	# Containers	Analyses	Lab Sample Number
10-001	MW-26	Aqueous	GRAB	10/13/25	14:50	7	Indfill-app1-metals-6020dfill-app1-voc-group	10
11-001	MW-32	Aqueous	GRAB	10/13/25	17:05	7	Indfill-app1-metals-6020dfill-app1-voc-group	11
12-001	MW-33	Aqueous	GRAB	10/13/25	16:50	7	Indfill-app1-metals-6020dfill-app1-voc-group	12
13-001	ACM Tile 1 <u>DRY</u>	Aqueous	GRAB	10/13/25	—	—	as-t-6020 Indfill-app1-voc-group	
14-001	PECS-1 <u>DRY</u>	Aqueous	GRAB	10/13/25	—	—	Indfill-app1-voc-group	1
15-001	Duplicate	Aqueous	GRAB	10/13/25	✓	1	Indfill-app1-metals-6020dfill-app1-voc-group	13

Relinquished By

Date/Time

Relinquished By

Date/Time

Received By

Date/Time

Received for Lab By

Date/Time

Remarks:

Appendix D

Turbidity Data Summary

Fayette County Sanitary Landfill

Field Turbidity Over Time

No-Purge Sampling

Date	Monitoring Well											
	5	7	9	12	16	17	21	24	25	26	32	33
10/20/15	5.57	0.15	4.93	0.52	5.26	2.84	0.18	0.79	0.31	0.67		
2/25/16												
4/11/16	1.18	0.12	532.2	0.23	0.24	8.44	0.4	0.78	0.58	0.1		
7/13/16			6.64									
10/11/16	1.82	0.23	7.19	0.16	0.46	1.93	0.16	0.49	0.18	2.26		
1/24/17			97.74						1.49	3.59		
4/12/17	11.88	0.27	3.59	1.18	0.24	1.35	0.38	1.54	0.99	0.65		
7/10/17					17.42							
10/25/17	22.4	0.87	28.6	1.07	1.09	1.7	2.67	74.2	0.57	1.45		
1/17/18										10.5		
4/11/18	7.1	0.58	87.63	0.82	0.89	0.73	0.8	1.02	0.63	1.68	19.25	
7/2/18			4.21							3.84		0.56
10/16/18	8.43	0.66	6.61	0.85	0.86	0.55	0.41	1.33	0.49	0.6	9.07	0.67
4/17/19	3.18	0.18	362.2	0.62	0.81	1.76	3.2	4.62	1.5	1.2	12.17	3.75
7/23/19	2.61											
10/15/19	32.41	0.78	2.66	0.77	0.91	0.86	0.69	1.14	0.67	0.91	3.68	1.09
4/6/20	15.16	1.8	228.8	1.08	0.96	1.41	0.6	6.41	1.73	1.28	6.16	3.8
7/1/20												1.77
10/13/20	2.35	1.33	4.37	5.88	1.58	3.69	3.51	1.33	1.33	19.89	3.37	1.34
4/12/21	5.63	1.86	219.9	3.18	6.21	2.21	1.55	1.86	2.45	1.24	78.13	2.13
7/1/21											25.74	
10/6/21	4.78	1.43	11.79	1.21	1.48	1.83	0.89	1.97	5.91	1.52	3.27	1.38
4/15/22	7.87	1.58	159.1	1.37	1.14	2.01	7.67	1.27	1.65	0.96	44.74	2.2
7/13/22												7.55
10/25/22	2.81	1.14	3.43	1.69	0.95	7.21		11.32	1.04	1.22	1.2	3.76
1/9/23												
4/3/23	2.75	0.88	32.28	1.6	1.08	1.44	0.91	5.14	0.69	0.61	115.9	77.56
10/16/23	14.26	5.11	29.14	2.7	2.07	2.1			3.97	1.5	72.86	57.47
4/22/24	4.46	2.66	24.41	6.91	2.27	2.66	2.75	7.61	2.69	83.06	35.63	88.99
10/7/24	3.35	6.02	8.7	3.84	3.15	2.54	26.42		2.54	7.81	23.22	
4/1/25	8.89	1.85	52.66	1.64	1.51	2.15	2.45	3.63	1.83	10.79	37.3	8.08
10/13/25	4.24	1.78	21.89	2.88	2.67	4	2.87	2.33	1.05	5.03	48.28	1.48
Max	32.41	6.02	532.20	6.91	17.42	8.44	26.42	74.20	5.91	83.06	115.90	88.99
Min	1.18	0.12	2.66	0.16	0.24	0.55	0.16	0.49	0.18	0.10	1.20	0.56
Ave	7.87	1.49	80.86	1.91	2.42	2.54	3.08	6.78	1.56	6.77	31.76	15.50
Std Dev	7.57	1.53	133.15	1.78	3.67	1.96	5.94	16.57	1.34	16.89	32.18	28.87

Appendix E

Prediction Limit Exceedance Summary

Prediction Limit Exceedances

Spring 2016 †		Fall 2016	
MW-24	None	MW-24**	Arsenic
			Barium
			Cobalt
			Nickel
			Benzene
MW-25	None	MW-25	Cobalt
MW-27	1,1-Dichloroethane	MW-27**	Arsenic
	Benzene		Barium
	Chloroethane		Cobalt
	Vinyl Chloride		Nickel
			1,1-Dichloroethane
			Benzene
			Chloroethane
			Vinyl Chloride
MW-28	Benzene	MW-28**	Arsenic
			Barium
			Cobalt
			Nickel
			1,1-Dichloroethane
			Benzene
			Chloroethane
MW-5	Benzene	MW-5**	Arsenic
	Chloroethane		Cobalt
	Cis-1,2-dichloroethene		Benzene
			Chloroethane
			Cis-1,2-dichloroethene
MW-7	None	MW-7**	Zinc
MW-9	None	MW-9	Barium
MW-10**	Arsenic	MW-10**	None

** Monitoring well is an Assessment or Corrective Action monitoring point and water quality should be compared to GWPS, rather than site prediction limits.

† = predates the restriction of background data to the "No Purge" data. Inorganic data is excluded prior to October, 2016. Only VOC information is considered accurate prior to October, 2016.

Spring 2017		Fall 2017	
MW-5**	Benzene	MW-5**	Benzene
	Chloroethane		Chlorobenzene
	Cis-1,2-dichloroethene		Chloroethane
	Vinyl Chloride		Cis-1,2-dichloroethene
			Ethylbenzene
MW-6**	None	MW-6**	Arsenic
MW-7**	None	MW-7**	None
MW-9**	Barium	MW-9**	Barium
	Cobalt		
MW-10**	Bis(2-ethylhexyl)phthalate	MW-10**	None
MW-16**	Zinc	MW-16**	Nickel
MW-24**	Barium	MW-24**	Arsenic
	Cobalt		Barium
	Nickel		Cobalt
			Nickel
MW-25**	Cobalt	MW-25**	Cobalt
	Bis(2-ethylhexyl)phthalate		Nickel
			Zinc
MW-26**	Nickel	MW-26**	Cobalt
			Nickel
			Bis(2-ethylhexyl)phthalate
MW-27**	1,1-Dichloroethane	MW-27**	1,1-Dichloroethane
	Chloroethane		Benzene
	Vinyl Chloride		Chloroethane
MW-28**	Benzene	MW-28**	Benzene
	Chloroethane		

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Spring 2018		Fall 2018	
MW-5**	1,1-Dichloroethane	MW-5**	Benzene
	1,4-dichlorobenzene		Chloroethane
	2-butanone		
	Acetone		
	Benzene		
	Chlorobenzene		
	Chloroethane		
	Cis-1,2-dichloroethene		
	Ethylbenzene		
	Xylenes		
MW-6**	Arsenic	MW-6**	None
MW-7**	None	MW-7**	None
MW-9**	Bis(2-ethylhexyl)phthalate	MW-9**	Barium
	Arsenic		
	Barium		
	Cobalt		
MW-10**	Bis(2-ethylhexyl)phthalate	MW-10**	Bis(2-ethylhexyl)phthalate
MW-16**	None	MW-16**	None
MW-24**	Benzene	MW-24**	Barium
	Arsenic		Cobalt
	Barium		Nickel
	Cobalt		
	Nickel		
MW-25**	Zinc	MW-25**	Cobalt
MW-26**	Cobalt	MW-26**	Cobalt
	Nickel		

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Spring 2019		Fall 2019	
MW-5**	Arsenic	MW-5**	Arsenic
	Cobalt		Benzene
	Benzene		Chlorobenzene
	Chloroethane		Chloroethane
	Cis-1,2-dichloroethene		
	Ethylbenzene		
MW-6**	Copper	MW-6**	None
	1,4-dichlorobenzene		
MW-7**	Zinc	MW-7**	Zinc
MW-9**	Arsenic	MW-9**	Barium
	Barium		Bis(2-ethylhexyl)phthalate
	Cobalt		
MW-10**	None	MW-10**	None
MW-16**	None	MW-16**	None
MW-24**	Barium	MW-24**	Barium
	Cobalt		Cobalt
	Nickel		Nickel
MW-25**	Cobalt	MW-25**	Cobalt
MW-26**	Bis(2-ethylhexyl)phthalate	MW-26**	Cobalt
			Nickel

** Monitoring well is an Assessment or Corrective Action monitoring point and water quality should be compared to GWPS, rather than site prediction limits.

Spring, 2020		Fall 2020	
MW-5**	Arsenic	MW-5**	Arsenic
	Benzene		Cobalt
	Chloroethane		Benzene
			Chloroethane
			cis-1,2-dichloroethene
MW-6**	None	MW-6**	None
MW-7**	Zinc	MW-7**	Zinc
MW-9**	Arsenic	MW-9**	Barium
	Barium		
	Cobalt		
MW-10**	None	MW-10**	None
MW-16**	None	MW-16**	None
MW-24**	Barium	MW-24**	Arsenic
	Cobalt		Barium
	Nickel		Cobalt
			Nickel
			Benzene
			1,1-dichloroethane
			vinyl chloride
MW-25**	None	MW-25**	Cobalt
MW-26**	Cobalt	MW-26**	Cobalt
			Nickel

** Monitoring well is an Assessment or Corrective Action monitoring point and water quality should be compared to GWPS, rather than site prediction limits.

Spring, 2021		Fall 2021	
MW-5**	Acetone	MW-5**	1,4-dichlorobenzene
	Benzene		Benzene
	Chloroethane		Chlorobenzene
	Ethylbenzene		Chloroethane
	Xylenes		cis-1,2-dichloroethene
MW-9**	Arsenic	MW-9**	Barium
	Barium		
	Cobalt		
	Bis(2-ethylhexyl)phthalate		
MW-24**	Barium	MW-24**	Arsenic
	Cobalt		Barium
	Nickel		Cobalt
	Bis(2-ethylhexyl)phthalate		Nickel
			1,1-dichloroethane
			Benzene
			vinyl chloride
MW-25**	Cobalt	MW-25**	Cobalt
MW-26**	None	MW-26**	Cobalt
			Nickel
MW-32**	Arsenic	MW-32**	None
	Barium		

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Spring, 2022		Fall 2022	
MW-5**	1,4-dichlorobenzene	MW-5**	Benzene
	2-butanone		Chlorobenzene
	Acetone		Chloroethane
	Benzene		cis-1,2-dichloroethene
	Xylenes		cis-1,2-dichloroethene
	Carbon Disulfide		Ethylbenzene
	Chlorobenzene		Toluene
	Chloroethane		
	cis-1,2-dichloroethene		
	Ethylbenzene		
	Xylenes		
MW-9**	Arsenic	MW-9**	Arsenic
	Barium		Barium
	Cobalt		Bis(2-ethylhexyl)phthalate
MW-24**	Barium	MW-24**	Arsenic
	Cobalt		Barium
	Nickel		Nickel
			1,1-dichloroethane
			Benzene
			Chloroethane
			vinyl chloride
MW-25**	None	MW-25**	Cobalt
MW-26**	None	MW-26**	Cobalt
			Nickel
MW-32**	Barium	MW-32**	Barium
			Cobalt
MW-33**	Cobalt	MW-33**	Barium
			Cobalt
			Nickel
			Bis(2-ethylhexyl)phthalate

** Monitoring well is an Assessment or Corrective Action monitoring point and water quality should be compared to GWPS, rather than site prediction limit

Spring, 2023		Fall 2023	
MW-5**	Benzene	MW-5**	Benzene
	Chlorobenzene		Chlorobenzene
	Chloroethane		Chloroethane
	cis-1,2-dichloroethene		cis-1,2-dichloroethene
	Vinyl chloride		
MW-9**	Arsenic	MW-9**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
			Nickel
MW-24**	Barium	MW-24**	None
	Nickel		
MW-25**	Bis(2-ethylhexyl)phthalate	MW-25**	None
MW-26**	Bis(2-ethylhexyl)phthalate	MW-26**	Acetone
			Cobalt
			Nickel
MW-32**	Barium	MW-32**	Arsenic
			Barium
MW-33**	Cadmiumt	MW-33**	Arsenic
	Cobalt		Barium
	Nickel		Cadmium
			Cobalt
			Copper
			Nickel
			Vanadium

*** Monitoring well is an Assessment or Corrective Action monitoring point and water quality should be compared to GWPS, rather than site prediction limit*

Spring, 2024		Fall 2024	
MW-5**	Benzene	MW-5**	1,1-dichloroethane
	Chloroethane		Benzene
	cis-1,2-dichloroethene		Chlorobenzene
	Cobalt		Chloroethane
			cis-1,2-dichloroethene
			Toluene
			Arsenic
			Cobalt
MW-9**	Barium	MW-9**	Arsenic
	Cobalt		Barium
	Nickel		Cobalt
MW-24**	Arsenic	MW-24**	Dry
	Barium		
	Cobalt		
	Nickel		
MW-25**	Arsenic	MW-25**	None
	Cobalt		
	Nickel		
MW-26**	Cobalt	MW-26**	Cobalt
MW-32**	Barium	MW-32**	Arsenic
	Cobalt		Barium
	Nickel		
MW-33**	Arsenic	MW-33**	Dry
	Cadmium		
	Cobalt		
	Nickel		

*** Monitoring well is an Assessment or Corrective Action monitoring point and water quality should be compared to GWPS, rather than site prediction limit*

Spring, 2025		Fall 2025	
MW-5**	Arsenic	MW-5**	Arsenic
	1,1-dichloroethane		1,1-dichloroethane
	1,4 dichlorobenzene		1,4 dichlorobenzene
	2-butanaone		Benzene
	Acetone		Chlorobenzene
	Benzene		Chloroethane
	Chlorobenzene		cis-1,2-dichloroethene
	Chloroethane		Ethylbenzene
	cis-1,2-dichloroethene		
	Ethylbenzene		
	Vinyl chloride		
	Xylenes		
MW-7**	None	MW-7**	Zinc
MW-9**	Arsenic	MW-9**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
MW-24**	Arsenic	MW-24**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	Benzene		Benzene
	1,1-dichloroethane		1,1-dichloroethane
	Vinyl chloride		Vinyl chloride
MW-25**	None	MW-25**	None
MW-26**	Cobalt	MW-26**	Cobalt
MW-32**	Barium	MW-32**	Barium
	Cobalt		
MW-33**	Cobalt	MW-33**	Cobalt
	Nickel		

** Monitoring well is an Assessment or Corrective Action monitoring point and water quality should be compared to GWPS, rather than site prediction limit

Appendix F

Assessment Monitoring Summary – Appendix II

Bis(2-ethylhexyl)phthalate (ug/L)

Date	MW-5	MW-7	MW-9	MW-16	MW-24	MW-25	MW-26	MW-32	MW-33
6/21/2011	<8	NT	NT	NT	NT	NT	NT	---	---
4/18/2012	<8	NT	NT	NT	NT	NT	NT	---	---
6/21/2012	NT	NT	NT	NT	NT	NT	NT	---	---
10/10/2012	NT	NT	NT	NT	NT	NT	NT	---	---
12/19/2012	NT	NT	NT	NT	NT	NT	NT	---	---
2/18/2013	NT	NT	NT	NT	NT	NT	NT	---	---
4/24/2013	NT	<8	NT	NT	NT	NT	NT	---	---
6/6/2013	NT	NT	NT	NT	NT	NT	NT	---	---
8/27/2013	NT	NT	NT	NT	NT	NT	NT	---	---
10/28/2013	NT	NT	NT	NT	NT	NT	NT	---	---
1/16/2014	NT	NT	NT	NT	NT	NT	NT	---	---
4/25/2014	NT	<8	NT	NT	NT	NT	NT	---	---
6/24/2014	NT	NT	NT	NT	NT	NT	NT	---	---
10/17/2014	NT	NT	NT	NT	NT	NT	NT	---	---
4/27/2015	NT	NT	NT	NT	NT	NT	NT	---	---
10/20/2015	8.0	<8	NT	NT	<8	NT	NT	---	---
4/11/2016	<8	NT	NT	NT	<8	NT	NT	---	---
7/13/2016	NT	NT	NT	NT	NT	NT	NT	---	---
10/11/2016	<8	NT	NT	NT	NT	NT	NT	---	---
4/13/2017	<6	NT	<6	NT	NT	18.0	NT	---	---
10/26/2017	<6	NT	NT	<6	NT	<6	12.0	NT	NT
4/11/2018	<6	NT	6.0	<6	NT	<6	<6	NT	NT
10/16/2018	<6	NT	<6	NT	NT	<6	<6	NT	NT
4/17/2019	NT	NT	<6	NT	NT	<6	7.0	NT	NT
10/15/2019	NT	NT	12.0	NT	NT	<6	<6	NT	NT
4/6/2020	NT	NT	<6	NT	NT	<6	<6	NT	NT
10/13/2020	<6	<6	<6	NT	NT	<6	<6	NT	NT
4/12/2021	NT	NT	6.0	NT	12.0	NT	<6	NT	NT
10/6/2021	NT	NT	<6	NT	<6	NT	<6	<6	NT
4/14/2022	NT	NT	<6	NT	<6	NT	NT	NT	NT
10/25/2022	NT	NT	6.0	NT	<6	NT	NT	<6	55.0
4/3/2023	NT	NT	<6	NT	NT	15.0	18.0	NT	<6
10/16/2023	NT	NT	NT	NT	NT	<6	<6	NT	<6
4/22/2024	NT	NT	NT	NT	NT	NT	NT	NT	<6
10/7/2024	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/1/2025	NT	NT	NT	NT	NT	NT	NT	NT	NT
10/13/2025	<6	<6	NT	NT	NT	NT	NT	NT	NT

Sulfide (ug/L)

Date	MW-5	MW-7	MW-9	MW-16	MW-24	MW-25	MW-26	MW-32	MW-33
6/21/2011	<100	NT	NT	NT	NT	NT	NT	---	---
4/18/2012	<100	NT	NT	NT	NT	NT	NT	---	---
10/10/2012	NT	NT	NT	NT	NT	NT	NT	---	---
12/19/2012	NT	NT	NT	NT	NT	NT	NT	---	---
2/18/2013	NT	NT	NT	NT	NT	NT	NT	---	---
4/24/2013	NT	<100	NT	NT	NT	NT	NT	---	---
6/6/2013	NT	NT	NT	NT	NT	NT	NT	---	---
8/27/2013	NT	NT	NT	NT	NT	NT	NT	---	---
10/28/2013	NT	NT	NT	NT	NT	NT	NT	---	---
1/16/2014	NT	NT	NT	NT	NT	NT	NT	---	---
4/25/2014	NT	<100	NT	NT	NT	NT	NT	---	---
10/17/2014	NT	NT	NT	NT	NT	NT	NT	---	---
4/27/2015	NT	NT	NT	NT	NT	NT	NT	---	---
10/20/2015	240	<100	NT	NT	<100	NT	NT	---	---
4/11/2016	130	NT	NT	NT	120	NT	NT	---	---
7/13/2016	NT	NT	NT	NT	NT	NT	NT	---	---
10/11/2016	1700	NT	NT	NT	<100	NT	NT	---	---
4/13/2017	<100	NT	<100	NT	<100	<100	NT	---	---
10/26/2017	140	NT	NT	130	<100	NT	<100	NT	NT
4/11/2018	<100	NT	<100	<100	<100	<100	<100	NT	NT
10/16/2018	<100	NT	NT	<100	<100	NT	NT	NT	NT
4/17/2019	<100	NT	NT	<100	NT	NT	NT	NT	NT
10/15/2019	<100	NT	NT	<100	NT	NT	NT	NT	NT
4/6/2020	180	NT	NT	<100	NT	NT	NT	NT	NT
10/13/2020	300	<100	NT	<100	NT	NT	NT	NT	NT
4/12/2021	250	NT	NT	NT	<100	NT	NT	NT	NT
10/6/2021	<100	NT	NT	NT	NT	NT	NT	<100	NT
4/14/2022	660	NT	NT	NT	NT	NT	NT	NT	NT
10/25/2022	<300	NT	NT	NT	NT	NT	NT	<300	<100
4/3/2023	<300	NT	<300	NT	NT	<100	<100	NT	NT
10/16/2023	170	NT	NT	NT	NT	NT	NT	NT	<100
4/22/2024	<100	NT	NT	NT	NT	NT	NT	NT	NT
10/7/2024	280	NT	NT	NT	NT	NT	NT	NT	NT
4/1/2025	540	NT	NT	NT	NT	NT	NT	NT	NT
10/13/2025	350	<100	NT	NT	NT	NT	NT	NT	NT

Sulfide testing will continue on a semi-annual basis at MW-5.

Appendix G

Leachate Collection System Performance Evaluation

Appendix G.1 – Treatment Agreement with Oelwein POTW



April 19, 2023

DYLAN MULFINGER – CITY ADMINISTRATOR
CITY OF OELWEIN
20 2ND AVENUE SW
OELWEIN, IA 50662-2241

RE: NPDES Permit Amendment #3353001

Dear Mr. Mulfinger:

Enclosed is the NPDES permit amendment for the City of Oelwein's wastewater treatment facility. At the request of the City, the remaining dates in the Nutrient Reduction Strategy are being adjusted to allow the City additional time to complete treatment plant construction. Please replace your entire permit with the enclosed permit.

The facility will be required to use new discharge monitoring report (DMR) forms once a final permit is issued. Electronic DMR forms are available from your regional Field Office. Please contact Michele Smith at 563-927-2640 (Field Office 1) or michele.smith@dnr.iowa.gov for more information.

If you have any questions, please contact me at 515-452-6235 or at ryan.olive@dnr.iowa.gov.

Sincerely,

Ryan Olive
NPDES Section

Enclosures



**STATE OF IOWA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROGRAM
AMENDMENT TO NPDES PERMIT**

Iowa NPDES Permit #:	3353001
Date of Issuance:	June 1, 2021
Date of Expiration:	May 31, 2026
Date of this Amendment:	May 1, 2023
EPA Number:	IA0032344

Name and Mailing Address of Applicant:

CITY OF OELWEIN
20 2ND AVE. SW
OELWEIN, IA 50662

Identity and Location of Facility:

OELWEIN CITY OF STP
Section 29, Township 91, Range 09W, Fayette County

Pursuant to the authority Iowa Code Section 455B.174, and of Rule 567--64.3, Iowa Administrative Code, the Director of the Iowa Department of Natural Resources has issued the above referenced permit. Pursuant to the same authority the Director hereby amends said permit as set forth below:

Enclosed is the approved permit amendment for the City of Oelwein's wastewater treatment plant. At the request of the City, the remaining dates in the Nutrient Reduction Strategy are being adjusted to allow the City additional time to complete treatment plant construction. Please replace your entire permit with the enclosed permit.

For the Department of Natural Resources:

By _____
Ryan Olive
NPDES Section
ENVIRONMENTAL SERVICES DIVISION



**STATE OF IOWA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROGRAM
AMENDMENT TO NPDES PERMIT**

Iowa NPDES Permit #:	3353001
Date of Issuance:	June 1, 2021
Date of Expiration:	May 31, 2026
Date of this Amendment:	October 1, 2021
EPA Number:	IA0032344

Name and Mailing Address of Applicant:

CITY OF OELWEIN
20 2ND AVENUE SW
OELWEIN, IA 50662-2241

Identity and Location of Facility:

OELWEIN CITY OF STP
Section 29, Township 91, Range 09W, Fayette County

Pursuant to the authority Iowa Code Section 455B.174, and of Rule 567--64.3, Iowa Administrative Code, the Director of the Iowa Department of Natural Resources has issued the above referenced permit. Pursuant to the same authority the Director hereby amends said permit as set forth below:

Enclosed is the NPDES permit amendment for the City of Oelwein's wastewater treatment facility. Due to a clerical error, methyl chloride was included as a monitoring requirement for DCW Casing. The correct parameter should have been methylene chloride and has been corrected with this amendment. The effective date of this amendment is October 1, 2021.

Please replace your entire permit with the enclosed permit.

For the Department of Natural Resources:

By _____
Ryan Olive
NPDES Section
ENVIRONMENTAL SERVICES DIVISION

IOWA DEPARTMENT OF NATURAL RESOURCES
National Pollutant Discharge Elimination System (NPDES) Permit

OWNER NAME & ADDRESS

CITY OF OELWEIN
20 2ND AVE. SW
OELWEIN, IA 50662-2241

FACILITY NAME & ADDRESS

OELWEIN CITY OF STP
500 9TH AVE. SW
OELWEIN, IA 50662

Section 29, T91N, R09W
Fayette County

IOWA NPDES PERMIT NUMBER: 3353001
DATE OF ISSUANCE: 06/01/2021
DATE OF EXPIRATION: 05/31/2026

**YOU ARE REQUIRED TO FILE FOR RENEWAL
OF THIS PERMIT BY:** 12/02/2025
EPA NUMBER: IA0032344

This permit is issued pursuant to the authority of section 402(b) of the Clean Water Act (33 U.S.C. 1342(b)), Iowa Code section 455B.174, and rule 567-64.3, Iowa Administrative Code. You are authorized to operate the disposal system and to discharge the pollutants specified in this permit in accordance with the effluent limitations, monitoring requirements and other terms set forth in this permit.

You may appeal any condition of this permit by filing a written notice of appeal and request for administrative hearing with the director of the department within 30 days of permit issuance.

Any existing, unexpired Iowa operation permit or Iowa NPDES permit previously issued by the department for the facility identified above is revoked by the issuance of this permit. This provision does not apply to any authorization to discharge under the terms and conditions of a general permit issued by the department or to any permit issued exclusively for the discharge of stormwater.

FOR THE DEPARTMENT OF NATURAL RESOURCES

By _____

Ryan Olive
NPDES Section, Environmental Services Division

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Outfall No.: 002 DISCHARGE FROM A SEQUENCING BATCH REACTOR ACTIVATED SLUDGE WASTEWATER TREATMENT FACILITY

Receiving Stream: OTTER CREEK

Route of Flow: OTTER CREEK

Class A3 waters are children's recreational use waters in which recreational uses by children are common. Class A3 waters are water bodies having definite banks and bed with visible evidence of flow or occurrence of water. This type of use would primarily occur in urban or residential areas.

Waters designated Class B(WW2) are those in which flow or other physical characteristics are capable of supporting a resident aquatic community that includes a variety of native nongame fish and invertebrate species. The flow and other physical characteristics limit the maintenance of warm water game fish populations. These waters generally consist of small perennially flowing streams.

Outfall No.: 004 BYPASS FROM THE FLOW EQUALIZATION BASIN OVERFLOW

Receiving Stream: UNNAMED CREEK

Route of Flow: UNNAMED CREEK TO OTTER CREEK

Class A1 waters are primary contact recreational use waters in which recreational or other uses may result in prolonged and direct contact with the water, involving considerable risks of ingesting water in quantities sufficient to pose a health hazard. Such activities would include, but not be limited to, swimming, diving, water skiing, and water contact recreational canoeing.

Waters designated Class B(WW1) are those in which temperature, flow and other habitat characteristics are suitable to maintain warm water game fish populations along with a resident aquatic community that includes a variety of native nongame fish and invertebrates species. These waters generally include border rivers, large interior rivers, and the lower segments of medium-size tributary streams.

Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited.

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Effluent Limitations:

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

002 DISCHARGE FROM A SEQUENCING BATCH REACTOR ACTIVATED SLUDGE WASTEWATER TREATMENT FACILITY

Outfall: 002 Effective Dates: 06/01/2021 to 05/31/2026				
Parameter	Season	Limit Type	Limits	
CBOD5			85% Removal Required	
	Yearly	7 Day Average	40 MG/L	887 LBS/DAY
	Yearly	30 Day Average	25 MG/L	555 LBS/DAY
TOTAL SUSPENDED SOLIDS			85% Removal Required	
	Yearly	7 Day Average	45 MG/L	998 LBS/DAY
	Yearly	30 Day Average	30 MG/L	666 LBS/DAY
AMMONIA NITROGEN (N)				
	JAN	30 Day Average	6.4 MG/L	135.6 LBS/DAY
	JAN	Daily Maximum	15.6 MG/L	305.3 LBS/DAY
	FEB	30 Day Average	7.4 MG/L	152.8 LBS/DAY
	FEB	Daily Maximum	14.7 MG/L	319.3 LBS/DAY
	MAR	30 Day Average	3.9 MG/L	75 LBS/DAY
	MAR	Daily Maximum	13.3 MG/L	254.9 LBS/DAY
	APR	30 Day Average	2.8 MG/L	53.7 LBS/DAY
	APR	Daily Maximum	9.1 MG/L	175.5 LBS/DAY
	MAY	30 Day Average	2.5 MG/L	46.7 LBS/DAY
	MAY	Daily Maximum	9.2 MG/L	176.8 LBS/DAY
	JUN	30 Day Average	1.8 MG/L	33.7 LBS/DAY

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Outfall: 002 Effective Dates: 06/01/2021 to 05/31/2026				
<u>Parameter</u>	<u>Season</u>	<u>Limit Type</u>	<u>Limits</u>	
AMMONIA NITROGEN (N)				
	JUN	Daily Maximum	8 MG/L	133.2 LBS/DAY
	JUL	30 Day Average	1.6 MG/L	28.9 LBS/DAY
	JUL	Daily Maximum	6.3 MG/L	104.4 LBS/DAY
	AUG	30 Day Average	1.5 MG/L	26.3 LBS/DAY
	AUG	Daily Maximum	6.3 MG/L	102.2 LBS/DAY
	SEP	30 Day Average	2 MG/L	37.3 LBS/DAY
	SEP	Daily Maximum	7.4 MG/L	124.4 LBS/DAY
	OCT	30 Day Average	2.9 MG/L	64.6 LBS/DAY
	OCT	Daily Maximum	11.2 MG/L	182.1 LBS/DAY
	NOV	30 Day Average	4.3 MG/L	88.6 LBS/DAY
	NOV	Daily Maximum	9.2 MG/L	175.8 LBS/DAY
	DEC	30 Day Average	4.6 MG/L	102.7 LBS/DAY
	DEC	Daily Maximum	11 MG/L	211.7 LBS/DAY
ACUTE TOXICITY, CERIODAPHNIA				
	Yearly	Daily Maximum	1 NO TOXICITY	
ACUTE TOXICITY, PIMEPHALES				
	Yearly	Daily Maximum	1 NO TOXICITY	

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Outfall: 002 Effective Dates: 06/01/2021 to 05/31/2026			
<u>Parameter</u>	<u>Season</u>	<u>Limit Type</u>	<u>Limits</u>
DISSOLVED OXYGEN			
	Yearly	Daily Minimum	5.0 MG/L
PH			
	Yearly	Daily Maximum	9.0 STD UNITS
	Yearly	Daily Minimum	6.5 STD UNITS
E. COLI			
	MAR	Geometric Mean	126 #/100 ML
	APR	Geometric Mean	126 #/100 ML
	MAY	Geometric Mean	126 #/100 ML
	JUN	Geometric Mean	126 #/100 ML
	JUL	Geometric Mean	126 #/100 ML
	AUG	Geometric Mean	126 #/100 ML
	SEP	Geometric Mean	126 #/100 ML
	OCT	Geometric Mean	126 #/100 ML
	NOV	Geometric Mean	126 #/100 ML
ANNUAL AVERAGE NITROGEN DISCHARGED (AS N)			
	Yearly	Annual Average	113 LBS/DAY

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:

- (1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
- (2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Outfall	Wastewater Parameter	Sample Frequency	Sample Type	Monitoring Location
The following monitoring requirements shall be in effect from 06/01/2021 to 05/31/2026				
002	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	RAW WASTE - TOTAL
002	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	RAW WASTE - STORM WATER BASIN RETURN
002	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	RAW WASTE - STORM WATER BASIN INFLUENT
002	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	RAW WASTE - MECHANICAL PLANT INFLUENT
002	BIOCHEMICAL OXYGEN DEMAND (BOD5)	2 TIMES PER WEEK	24 HOUR COMPOSITE	RAW WASTE
002	NITROGEN, TOTAL (AS N)	1 TIME PER WEEK	24 HOUR COMPOSITE	RAW WASTE
002	NITROGEN, TOTAL KJELDAHL (AS N)	1 EVERY MONTH	24 HOUR COMPOSITE	RAW WASTE
002	PH	2 TIMES PER WEEK	GRAB	RAW WASTE
002	PHOSPHORUS, TOTAL (AS P)	1 TIME PER WEEK	24 HOUR COMPOSITE	RAW WASTE
002	TEMPERATURE	2 TIMES PER WEEK	GRAB	RAW WASTE
002	TOTAL SUSPENDED SOLIDS	2 TIMES PER WEEK	24 HOUR COMPOSITE	RAW WASTE
002	ANNUAL AVERAGE NITROGEN DISCHARGED (AS N)	1 EVERY 12 MONTHS	CALCULATED	FINAL EFFLUENT
002	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	FINAL EFFLUENT
002	ACUTE TOXICITY, CERIODAPHNIA	1 EVERY 12 MONTHS	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
002	ACUTE TOXICITY, PIMEPHALES	1 EVERY 12 MONTHS	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Outfall	Wastewater Parameter	Sample Frequency	Sample Type	Monitoring Location
The following monitoring requirements shall be in effect from 06/01/2021 to 05/31/2026				
002	AMMONIA NITROGEN (N)	2 TIMES PER WEEK	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
002	CBOD5	2 TIMES PER WEEK	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
002	CYANIDE, TOTAL (AS CN)	1 EVERY MONTH	GRAB	EFFLUENT AFTER DISINFECTION
002	DISSOLVED OXYGEN	2 TIMES PER WEEK	GRAB	EFFLUENT AFTER DISINFECTION
002	E. COLI	GEO. MEAN 1/3 MONTHS	GRAB	EFFLUENT AFTER DISINFECTION
002	NITROGEN, TOTAL (AS N)	1 TIME PER WEEK	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
002	PH	5 TIMES PER WEEK	GRAB	EFFLUENT AFTER DISINFECTION
002	PHOSPHORUS, TOTAL (AS P)	1 TIME PER WEEK	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION
002	TEMPERATURE	2 TIMES PER WEEK	GRAB	EFFLUENT AFTER DISINFECTION
002	TOTAL SUSPENDED SOLIDS	2 TIMES PER WEEK	24 HOUR COMPOSITE	EFFLUENT AFTER DISINFECTION

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Special Monitoring Requirements

Outfall #	Description

002	FLOW

To calculate the total raw waste flow (TOTAL RAW WASTE FLOW = MECHANICAL PLANT INFLUENT+ INFLUENT TO STORM WATER RETENTION BASIN- STORM WATER BASIN RETURN)

NITROGEN, TOTAL (AS N)

Total nitrogen shall be determined by testing for Total Kjeldahl Nitrogen (TKN) and nitrate + nitrite nitrogen and reporting the sum of the TKN and nitrate + nitrite results (reported as N). Nitrate + nitrite can be analyzed together or separately.

E. COLI

The limit for E. coli of 126 org/100 ml specified on page 5 of this permit for outfall(s) 002 is a geometric mean. The disinfection season is established in the Iowa Administrative Code, Subparagraph 567 IAC 61.3(3)“a”(1), and is in effect from March 15 to November 15. Any disinfection system (chlorine, UV light, etc.) shall be operated to comply with the limit during the entire disinfection season whenever wastewater is being discharged from outfall(s) 001.

The facility must collect and analyze a minimum of five samples in one calendar month during each 3-month period from March 15 to November 15. The 3-month periods are March – May, June – August, and September – November. The collection of five samples in each 3-month period will result in a minimum of 15 samples being collected during a calendar year. For example, for the first 3-month period, the operator may choose April as the calendar month to collect the 5 individual E. coli samples to determine compliance with the limits. The operator may also choose the months of March or May as well, as long as each of the 5 samples is collected during a single calendar month. The same principle applies to the other two 3-month periods during the disinfection season. The following requirements apply to the individual samples collected in one calendar month:

Samples must be spaced over one calendar month.

No more than one sample can be collected on any one day.

There must be a minimum of two days between each sample.

No more than two samples may be collected in a period of seven consecutive days.

If the effluent has been disinfected using chlorine, ultraviolet light (UV), or any other process intended to disrupt the biological integrity of the E. coli, the samples shall be analyzed using the Most Probable Number method found in Standard Method 9223B (Colilert® or Colilert-18® made by IDEXX Laboratories, Inc.). If the effluent has not been disinfected the samples may be analyzed using either the MPN method above or EPA Method 1603: Escherichia coli (E. coli) in water by membrane filtration using modified membrane-thermotolerant E. coli agar (modified mTEC) or mColiBlue-24® made by the Hach Company.

The geometric mean must be calculated using all valid sample results collected during a month. The geometric mean formula is as follows: Geometric Mean = (Sample one * Sample two * Sample three * Sample four * Sample five...Sample N)^(1/N), which is the Nth root of the result of the multiplication of all of the sample results where N = the number of samples. If a sample result is a less than value, the value reported by the lab without the less than sign should be used in the geometric mean calculation.

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

E. COLI (Continued)

The geometric mean can be calculated in one of the following ways:

Use a scientific calculator that can calculate the powers of numbers.

Enter the samples in Microsoft Excel and use the function "GEOMEAN" to perform the calculation.

If you have exactly five samples, use the geometric mean calculator on the Iowa DNR webpage at: <http://www.iowadnr.gov/Environmental-Protection/Water-Quality/NPDES-Wastewater-Permitting/NPDES-Operator-Information/Bacteria-Sampling>

ANNUAL AVERAGE NITROGEN DISCHARGED (AS N)

ANNUALLY FROM THE PERMIT ISSUANCE DATE OF JUNE 1, 2021, CALCULATE THE AVERAGE OF ALL TOTAL NITROGEN MASS (LBS/DAY) SAMPLE RESULTS FROM THE PREVIOUS 12 MONTHS. REPORT THE ANNUAL AVERAGE IN THE (NEXT MONTHS) DISCHARGE MONITORING REPORT (DMR) EACH YEAR.

CALCULATION: SUM OF ALL MASS MEASUREMENTS (LBS/DAY) IN THE LAST 12 MONTHS DIVIDED BY THE TOTAL NUMBER OF MEASUREMENTS IN THE LAST 12 MONTHS.

Facility Name: OELWEIN CITY OF STP
Permit Number: 3353001

Mixing Zone Special Monitoring Requirements

The effluent limits in this permit are based on a mixing zone study. The default mixing zone and zone of initial dilution will be used to calculate effluent limits for the renewal permit unless a new mixing zone study is completed. If a new mixing zone study is conducted, it shall be submitted with the permit renewal application.

The permittee is authorized to conduct a mixing zone study under the following conditions:

1) The mixing zone study shall use one of the following dyes:

a) Rhodamine WT dye	e) Fluorescent FLT Yellow/Green Powder
b) FWT red dye tablets	f) Bright Dye FWT Red Dye
c) FLT Yellow/Green Liquid Concentrate dye	g) FLT Yellow/Green dye tablets
d) Green Sewer Tracing Dye	

If a dye other than one listed above is used, you must obtain permission from the Department prior to use of the dye. Please contact Katie Greenstein at (515) 725-8400 or katie.greenstein@dnr.iowa.gov for approval of dyes other than those listed above.

- 2) The dye shall be used according to the instructions provided by the manufacturer;
- 3) The introduction of the dye into the receiving stream shall be limited to as short a time period as possible and the amount of dye used shall be as little as possible;
- 4) The mixing zone study shall be conducted during low river flow conditions and it shall follow the DNR Mixing Zone Study Guidelines;
- 5) The mixing zone study report shall include clear documentation of the mixing characteristics and the percentages of the total river flows in the mixing zone;
- 6) The following restrictions to the maximum allowed mixing zone shall be recorded in the mixing zone study documentation:
 - a) The distance to the juncture of two perennial streams.
 - b) The distance to a public water supply intake.
 - c) The distance to the upstream limits of an established recreational area, such as public beaches, and state, county and local parks.
 - d) The distance to the middle of a crossover point in a stream where the main current flows from one bank across to the opposite bank.
 - e) The distance to another mixing zone.
- 7) The mixing zone does not exceed a distance of 2000 feet; and
- 8) The DNR Field Office #1 in Manchester shall be notified by calling 563-927-2640 at least 48 hours prior to the use of dye.

Please contact Katie Greenstein at (515) 725-8400 or katie.greenstein@dnr.iowa.gov for questions regarding mixing zone studies.

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Significant Industrial User Discharges:

Significant Industrial User: FAYETTE COUNTY SOLID WASTE MANAGEMENT COMMISSION

Outfall # Outfall Description

001 BATCH DISCHARGE TO THE MUNICIPAL COLLECTION SYSTEM VIA A DESIGNATED MANHOLE

Significant Industrial User Effluent Limitations

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

FAYETTE COUNTY SOLID WASTE MANAGEMENT COMMISSION			
Outfall: 001 Effective Dates: 06/01/2021 to 05/31/2026			
<u>Parameter</u>	<u>Season</u>	<u>Limit Type</u>	<u>Limit Values</u>
FLOW			
	Yearly	30 Day Average	0.014 MGD
	Yearly	DAILY MAXIMUM	0.014 MGD
BIOCHEMICAL OXYGEN DEMAND (BOD5)			
	Yearly	30 Day Average	25 LBS/DAY
	Yearly	DAILY MAXIMUM	25 LBS/DAY
TOTAL SUSPENDED SOLIDS			
	Yearly	30 Day Average	30 LBS/DAY
	Yearly	DAILY MAXIMUM	30 LBS/DAY
AMMONIA NITROGEN (N)			
	Yearly	30 Day Average	45 LBS/DAY
	Yearly	DAILY MAXIMUM	45 LBS/DAY
ZINC, TOTAL (AS ZN)			
	Yearly	30 Day Average	0.632 MG/L 0.0685 LBS/DAY
	Yearly	DAILY MAXIMUM	18.0 MG/L 1.95 LBS/DAY
BARIUM, TOTAL (AS BA)			
	Yearly	30 Day Average	2.20 MG/L 0.2385 LBS/DAY
	Yearly	DAILY MAXIMUM	2.20 MG/L 0.2385 LBS/DAY

Facility Name: OELWEIN CITY OF STP

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CADMIUM, TOTAL (AS CD)				
	Yearly	30 Day Average	0.004 MG/L	0.00043 LBS/DAY
	Yearly	DAILY MAXIMUM	0.008 MG/L	0.00087 LBS/DAY
CHEMICAL OXYGEN DEMAND				
	Yearly	30 Day Average	115 LBS/DAY	
	Yearly	DAILY MAXIMUM	115 LBS/DAY	
IRON, TOTAL (AS FE)				
	Yearly	30 Day Average	40.0 MG/L	4.34 LBS/DAY
	Yearly	DAILY MAXIMUM	40.0 MG/L	4.34 LBS/DAY
MAGNESIUM, TOTAL (AS MG)				
	Yearly	30 Day Average	255 MG/L	27.6 LBS/DAY
	Yearly	DAILY MAXIMUM	255 MG/L	27.6 LBS/DAY
MERCURY, TOTAL (AS HG)				
	Yearly	30 Day Average	0.0003 MG/L	0.000033 LBS/DAY
	Yearly	DAILY MAXIMUM	0.0005 MG/L	0.000054 LBS/DAY
NITROGEN, TOTAL KJELDAHL (AS N)				
	Yearly	30 Day Average	50 LBS/DAY	
	Yearly	DAILY MAXIMUM	50 LBS/DAY	
OIL AND GREASE				
	Yearly	30 Day Average	100 MG/L	
	Yearly	DAILY MAXIMUM	100 MG/L	
ARSENIC, TOTAL (AS AS)				
	Yearly	30 Day Average	0.05 MG/L	0.0054 LBS/DAY
	Yearly	DAILY MAXIMUM	0.05 MG/L	0.0054 LBS/DAY
COPPER, TOTAL (AS CU)				
	Yearly	30 Day Average	0.17 MG/L	0.0184 LBS/DAY
	Yearly	DAILY MAXIMUM	0.17 MG/L	0.0184 LBS/DAY

Facility Name: OELWEIN CITY OF STP

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FAYETTE COUNTY SOLID WASTE MANAGEMENT COMMISSION			
Outfall: 001 Effective Dates: 06/01/2021 to 05/31/2026			
<u>Parameter</u>	<u>Season</u>	<u>Limit Type</u>	<u>Limit Values</u>
LEAD, TOTAL (AS PB)			
	Yearly	30 Day Average	0.056 MG/L 0.0061 LBS/DAY
	Yearly	DAILY MAXIMUM	0.156 MG/L 0.0169 LBS/DAY
BIS (2-ETHYLHEXYL) PHTHALATE			
	Yearly	30 Day Average	0.01 MG/L 0.0012 LBS/DAY
	Yearly	DAILY MAXIMUM	0.01 MG/L 0.0012 LBS/DAY
PH			
	Yearly	DAILY MAXIMUM	9.5 STD UNITS
	Yearly	DAILY MINIMUM	5.0 STD UNITS

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:

- (1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
- (2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

FAYETTE COUNTY SOLID WASTE MANAGEMENT COMMISSION				
Outfall	Wastewater Parameter	Sample Frequency	Sample Type	Monitoring Location
001	AMMONIA NITROGEN (N)	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	ARSENIC, TOTAL (AS AS)	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	BARIUM, TOTAL (AS BA)	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	BIOCHEMICAL OXYGEN DEMAND (BOD5)	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	BIS (2-ETHYLHEXYL) PHTHALATE	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	CADMIUM, TOTAL (AS CD)	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	CHEMICAL OXYGEN DEMAND	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	COPPER, TOTAL (AS CU)	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	FLOW	1 EVERY BATCH	24 HOUR TOTAL	PRIOR TO DISCHARGE TO CITY SEWER
001	IRON, TOTAL (AS FE)	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	LEAD, TOTAL (AS PB)	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	MAGNESIUM, TOTAL (AS MG)	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	MERCURY, TOTAL (AS HG)	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	NITROGEN, TOTAL KJELDAHL (AS N)	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	OIL AND GREASE	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	PH	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	SANITARY LANDFILL LEACHATE	1 EVERY 12 MONTHS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	TOTAL SUSPENDED SOLIDS	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	ZINC, TOTAL (AS ZN)	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

ADDITIONAL MONITORING REQUIREMENTS

FAYETTE COUNTY SOLID WASTE MANAGEMENT COMMISSION

The permittee shall analyze a representative sample of the landfill leachate discharge from Fayette County Solid Waste Management Commission at least annually for each of the pollutants listed below. Also, the permittee shall monitor the volume of waste discharged and BOD5, TSS, TKN, Ammonia Nitrogen, Oil and Grease at the frequencies specified on page 16 of this permit.

Pollutant

Biochemical Oxygen Demand (BOD5)

Total Suspended Solids

Ammonia Nitrogen (NH3-N)

pH

Chloride (as Cl)

Sulfate (as SO4)

Arsenic, Total (as As)

Chromium, Total (as Cr)

Copper, Total (as Cu)

Iron, Total (as Fe)

Lead, Total (as Pb)

Nickel, Total (as Ni)

Selenium, Total (as Se)

Zinc, Total (as Zn)

Benzoic Acid (Test Method EPA-RCA 8270D)

Chlorobenzene (Test Methods EPA 1624, 601, 602; Standard Methods 6200B, 6200C)

Ethylbenzene (Test Methods EPA 1624, 601, 602; Standard Methods 6200B, 6200C)

p-Cresol (Test Methods EPA-RCA 8270D, 8041A; USGS-NWQL O-1433-01, O-4433-06)

Phenol (Test Methods EPA 1625, 604, 625; Standard Methods 6410B, 6420B)

Toluene (Test Methods EPA 1624, 602, 624; Standard Methods 6200B, 6200C)

Results of annual monitoring shall be submitted to the addresses below:

Julie Faas

502 E 9th St

Des Moines, IA 50310

Field Office 1

909 West Main Street Suite 4

Manchester, IA 52057-1522

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Significant Industrial User Discharges:

Significant Industrial User: DCW CASING LLC

Outfall # Outfall Description

001 NEUTRALIZED BATCH DISCHARGE TO THE MUNICIPAL COLLECTION SYSTEM VIA A DESIGNATED MANHOLE

Significant Industrial User Effluent Limitations

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

DCW CASING LLC			
Outfall: 001 Effective Dates: 06/01/2021 to 05/31/2026			
<u>Parameter</u>	<u>Season</u>	<u>Limit Type</u>	<u>Limit Values</u>
FLOW			
	Yearly	30 Day Average	0.18 MGD
	Yearly	DAILY MAXIMUM	0.24 MGD
BIOCHEMICAL OXYGEN DEMAND (BOD5)			
	Yearly	30 Day Average	394 LBS/DAY
	Yearly	DAILY MAXIMUM	517 LBS/DAY
TOTAL SUSPENDED SOLIDS			
	Yearly	30 Day Average	364 LBS/DAY
	Yearly	DAILY MAXIMUM	467 LBS/DAY
CHLORIDE (AS CL)			
	Yearly	30 Day Average	3,065 LBS/DAY
	Yearly	DAILY MAXIMUM	4,500 LBS/DAY
CYANIDE, TOTAL (AS CN)			
	Yearly	30 Day Average	0.033 MG/L 0.0495 LBS/DAY
	Yearly	DAILY MAXIMUM	0.10 MG/L 0.1501 LBS/DAY
CHEMICAL OXYGEN DEMAND			
	Yearly	30 Day Average	890 LBS/DAY
	Yearly	DAILY MAXIMUM	1,025 LBS/DAY

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

NITROGEN, TOTAL KJELDAHL (AS N)			
	Yearly	30 Day Average	75 LBS/DAY
	Yearly	DAILY MAXIMUM	115 LBS/DAY
OIL AND GREASE			
	Yearly	30 Day Average	100 MG/L
	Yearly	DAILY MAXIMUM	100 MG/L
SULFATE, TOTAL (AS SO4)			
	Yearly	30 Day Average	1,500 MG/L 1,500 LBS/DAY
	Yearly	DAILY MAXIMUM	3,000 MG/L 2,250 LBS/DAY
SULFIDE, TOTAL (AS S)			
	Yearly	30 Day Average	2.0 MG/L
	Yearly	DAILY MAXIMUM	2.0 MG/L
METHYLENE CHLORIDE			
	Yearly	30 Day Average	0.7 MG/L 1.0508 LBS/DAY
	Yearly	DAILY MAXIMUM	3.0 MG/L 4.5036 LBS/DAY
ACETONE			
	Yearly	30 Day Average	8.2 MG/L 12.31 LBS/DAY
	Yearly	DAILY MAXIMUM	20.7 MG/L 31.075 LBS/DAY
PH			
	Yearly	DAILY MAXIMUM	9.5 STD UNITS
	Yearly	DAILY MINIMUM	5.5 STD UNITS
ETHYL ACETATE			
	Yearly	30 Day Average	8.2 MG/L 12.31 LBS/DAY
	Yearly	DAILY MAXIMUM	20.7 MG/L 31.075 LBS/DAY
N-AMYL ACETATE			
	Yearly	30 Day Average	8.2 MG/L 12.31 LBS/DAY
	Yearly	DAILY MAXIMUM	20.7 MG/L 31.075 LBS/DAY
ISOPROPYL ACETATE			
	Yearly	30 Day Average	8.2 MG/L 12.31 LBS/DAY
	Yearly	DAILY MAXIMUM	20.7 MG/L 31.075 LBS/DAY

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:

- (1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
- (2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

DCW CASING LLC				
Outfall	Wastewater Parameter	Sample Frequency	Sample Type	Monitoring Location
001	ACETONE	1 EVERY 3 MONTHS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	BIOCHEMICAL OXYGEN DEMAND (BOD5)	1 TIME PER WEEK	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	CHEMICAL OXYGEN DEMAND	2 PER MONTH	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	CHLORIDE (AS CL)	1 TIME PER WEEK	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	CYANIDE, TOTAL (AS CN)	2 PER MONTH	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	ETHYL ACETATE	1 EVERY 3 MONTHS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	PRIOR TO DISCHARGE TO CITY SEWER
001	ISOPROPYL ACETATE	1 EVERY 3 MONTHS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	METHYLENE CHLORIDE	1 EVERY 3 MONTHS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	N-AMYL ACETATE	1 EVERY 3 MONTHS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	NITROGEN, TOTAL KJELDAHL (AS N)	1 TIME PER WEEK	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	OIL AND GREASE	2 PER MONTH	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	PH	2 PER MONTH	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	SULFATE, TOTAL (AS SO4)	1 TIME PER WEEK	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	SULFIDE, TOTAL (AS S)	1 EVERY MONTH	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	TOTAL SUSPENDED SOLIDS	2 PER MONTH	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Significant Industrial User Discharges:

Significant Industrial User: EAST PENN MANUFACTURING CO. INC

Outfall # Outfall Description

001 EFFLUENT (WASTE) PRIOR TO DISCHARGE TO MUNICIPAL COLLECTION SYSTEM.

Significant Industrial User Effluent Limitations

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

EAST PENN MANUFACTURING CO. INC			
Outfall: 001 Effective Dates: 06/01/2021 to 05/31/2026			
<u>Parameter</u>	<u>Season</u>	<u>Limit Type</u>	<u>Limit Values</u>
FLOW			
	Yearly	30 Day Average	0.0653 MGD
	Yearly	DAILY MAXIMUM	0.067 MGD
BIOCHEMICAL OXYGEN DEMAND (BOD5)			
	Yearly	30 Day Average	120 LBS/DAY
	Yearly	DAILY MAXIMUM	123 LBS/DAY
TOTAL SUSPENDED SOLIDS			
	Yearly	30 Day Average	136 LBS/DAY
	Yearly	DAILY MAXIMUM	140 LBS/DAY
NITROGEN, TOTAL KJELDAHL (AS N)			
	Yearly	30 Day Average	19 LBS/DAY
	Yearly	DAILY MAXIMUM	19.6 LBS/DAY
OIL AND GREASE			
	Yearly	30 Day Average	100 MG/L
	Yearly	DAILY MAXIMUM	100 MG/L
SULFATE, TOTAL (AS SO4)			
	Yearly	30 Day Average	2,754 MG/L 1,000 LBS/DAY
	Yearly	DAILY MAXIMUM	4,131 MG/L 1,500 LBS/DAY

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

COPPER, TOTAL (AS CU)			
	Yearly	30 Day Average	0.367 MG/L 0.20 LBS/DAY
	Yearly	DAILY MAXIMUM	0.477 MG/L 0.26 LBS/DAY
LEAD, TOTAL (AS PB)			
	Yearly	30 Day Average	0.110 MG/L 0.06 LBS/DAY
	Yearly	DAILY MAXIMUM	0.220 MG/L 0.12 LBS/DAY
BIS (2-ETHYLHEXYL) PHTHALATE			
	Yearly	30 Day Average	0.01 MG/L 0.005 LBS/DAY
	Yearly	DAILY MAXIMUM	0.01 MG/L 0.005 LBS/DAY
PH			
	Yearly	DAILY MAXIMUM	9.5 STD UNITS
	Yearly	DAILY MINIMUM	5.5 STD UNITS

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:

- (1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
- (2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

EAST PENN MANUFACTURING CO. INC

Outfall	Wastewater Parameter	Sample Frequency	Sample Type	Monitoring Location
001	BIOCHEMICAL OXYGEN DEMAND (BOD5)	1 EVERY MONTH	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	BIS (2-ETHYLHEXYL) PHTHALATE	1 EVERY MONTH	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	COPPER, TOTAL (AS CU)	1 TIME PER WEEK	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	PRIOR TO DISCHARGE TO CITY SEWER
001	LEAD, TOTAL (AS PB)	1 TIME PER WEEK	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	NITROGEN, TOTAL KJELDAHL (AS N)	1 EVERY MONTH	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	OIL AND GREASE	1 EVERY MONTH	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	PH	1 TIME PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	SULFATE, TOTAL (AS SO4)	1 TIME PER WEEK	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER
001	TOTAL SUSPENDED SOLIDS	1 EVERY MONTH	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Outfall Number: 002

Ceriodaphnia and Pimephales Toxicity Effluent Testing

1. For facilities that have not been required to conduct toxicity testing by a previous NPDES permit, the initial annual toxicity test shall be conducted within three (3) months of permit issuance. For facilities that have been required to conduct toxicity testing by a previous NPDES permit, the initial annual toxicity test shall be conducted within twelve months (12) of the last toxicity test.
2. The test organisms that are to be used for acute toxicity testing shall be Ceriodaphnia dubia and Pimephales promelas. The acute toxicity testing procedures used to demonstrate compliance with permit limits shall be those listed in 40 CFR Part 136 and adopted by reference in rule 567 IAC 63.1(1). The method for measuring acute toxicity is specified in USEPA, October 2002, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition. USEPA, Office of Water, Washington, D.C., EPA 821-R-02-012.
3. The diluted effluent sample must contain a minimum of 64.00 % effluent and no more than 36.00 % of culture water.
4. One valid positive toxicity result will require, at a minimum, quarterly testing for effluent toxicity until three successive tests are determined not to be positive.
5. Two successive valid positive toxicity results or three positive results out of five successive valid effluent toxicity tests will require a toxicity reduction evaluation to be completed to eliminate the toxicity.
6. A non-toxic test result shall be indicated as a "1" on the monthly operation report. A toxic test result shall be indicated as a "2" on the monthly operation report. DNR Form 542-1381 shall also be submitted to the DNR field office along with the monthly operation report.

Ceriodaphnia and Pimephales Toxicity Effluent Limits

The maximum limit of "1" for the parameters Acute Toxicity, Ceriodaphnia and Acute Toxicity, Pimephales means no positive toxicity results.

Definition: "Positive toxicity result" means a statistical difference of mortality rate between the control and the diluted effluent sample. For more information, see USEPA, October 2002, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, USEPA, Office of Water, Washington, D.C., EPA 821-R-02-012.

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Design Capacity

Design: 1

The design capacity for the treatment works is specified in Construction Permit Number 2002-487-S, issued Wednesday, February 16, 2005. The treatment plant is designed to treat:

- * An average dry weather (ADW) flow of 1.07 Million Gallons Per Day (MGD).
- * An average wet weather (AWW) flow of 2.66 Million Gallons Per Day (MGD).
- * A maximum wet weather (MWW) flow of 6.20 Million Gallons Per Day (MGD).
- * A design 5-day biochemical oxygen demand (BOD5) load of 2,744 lbs/day.
- * A design Total Kjeldahl Nitrogen (TKN) load of 357 lbs/day.
- * A design Total Suspended Solids (TSS) load of 2,900 lbs/day.

Operator Certification Type/Grade: WW/IV

Wastes in such volumes or quantities as to exceed the design capacity of the treatment works or reduce the effluent quality below that specified in the operation permit of the treatment works are considered to be a waste which interferes with the operation or performance of the treatment works and are prohibited by subrule IAC 567-62.1(7).

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

SEWAGE SLUDGE HANDLING AND DISPOSAL REQUIREMENTS

"Sewage sludge" is solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge does not include the grit and screenings generated during preliminary treatment.

1. The permittee shall comply with all existing Federal and State laws and regulations that apply to the use and disposal of sewage sludge and with technical standards developed pursuant to Section 405(d) of the Clean Water Act when such standards are promulgated. If an applicable numerical limit or management practice for pollutants in sewage sludge is promulgated after issuance of this permit that is more stringent than a sludge pollutant limit or management practice specified in existing Federal or State laws or regulations, this permit shall be modified, or revoked and reissued, to conform to the regulations promulgated under Section 405(d) of the Clean Water Act. The permittee shall comply with the limitation no later than the compliance deadline specified in the applicable regulations.
2. The permittee shall provide written notice to the Department of Natural Resources prior to any planned changes in sludge disposal practices.
3. Land application of sewage sludge shall be conducted in accordance with criteria established in rule IAC 567 67.1 through 67.11 (455B).

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

SIGNIFICANT INDUSTRIAL USER LIMITATIONS, MONITORING AND REPORTING REQUIREMENTS

1. You must enforce the pollutant limits for each significant industrial user that are listed elsewhere in this permit. Violation of a treatment agreement limit is prohibited by subrule 567 IAC 62.1(6). Monitoring of each significant industrial user is required elsewhere in this permit.
2. Monitoring of each significant industrial user is required elsewhere in this permit. Results of the required monitoring shall be included on your discharge monitoring report, which must be submitted by the fifteenth of the following month.
3. You are required to notify the department, in writing, of any of the following:
 - (a) 180 days prior to the introduction of pollutants to your facility from a significant industrial user. A significant industrial user means an industrial user of a treatment works that:
 - (1) Discharges an average of 25,000 gallons per day or more of process wastewater excluding sanitary, noncontact cooling and boiler blowdown wastewater;
 - (2) Contributes a process waste stream which makes up five percent or more of the average dry weather hydraulic or organic capacity of the publicly-owned treatment works;
 - (3) Is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or
 - (4) Is designated by the department as a significant industrial user on the basis that the contributing industry, either singly or in combination with other contributing industries, has a reasonable potential for adversely affecting the operation of or effluent quality from the publicly-owned treatment works or for violating any pretreatment standards or requirements.
 - (b) 60 days prior to a proposed expansion, production increase or process modification that may result in the discharge of a new pollutant or a discharge in excess of limitations stated in the existing treatment agreement.
 - (c) 10 days prior to any commitment by you to accept waste from any new significant industrial user. Your written notification must include a new or revised treatment agreement in accordance with rule 64.3(5)(455B).
4. You shall require all users of your facility to comply with Sections 204(b), 307, and 308 of the Clean Water Act.
 - (a) Section 204(b) requires that all users of the treatment works constructed with funds provided under Sections 201(g) or 601 of the Act to pay their proportionate share of the costs of operation, maintenance and replacement of the treatment works.
 - (b) Section 307 of the Act requires users to comply with pretreatment standards promulgated by EPA for pollutants that would cause interference with the treatment process or would pass through the treatment works.
 - (c) Section 308 of the Act requires users to allow access at reasonable times to state and EPA inspectors for the purpose of sampling the discharge and reviewing and copying records.

Facility Name: OELWEIN CITY OF STP

Permit Number: 3353001

Nutrient Reduction Strategy Construction Schedule

Total Phosphorus – Outfall 002

The City of Oelwein shall continue to reach the goals of the Iowa Nutrient Reduction Strategy for reducing total phosphorus in the final effluent according to the following schedule:

- Submit progress report by **August 1, 2023**.
- Submit progress report by **August 1, 2024**.
- Complete construction of improvements by **January 1, 2025**.
- Complete 6 months of treatment plant optimization for nutrient reduction by **July 1, 2025**.
- Submit one year of at least weekly total phosphorus sampling data from the raw waste and final effluent by **August 1, 2026**. The report must include the results of all monitoring for total phosphorus in the raw waste and final effluent between July 1, 2025 and June 30, 2026.

Progress reports shall be submitted by the required due dates. Within fourteen (14) days following all dates of construction completion, optimization completion, and one year of monitoring, the permittee shall provide written notice of compliance with the scheduled event along with any applicable data. All written notices and progress reports shall be sent to the following addresses:

Ryan Olive
Iowa Department of Natural Resources
502 East 9th Street
Des Moines, IA 52057

DNR Field Office 1
1101 Commercial Ct Ste 10
Manchester, IA 52057

STANDARD CONDITIONS

1. **ADMINISTRATIVE RULES** - Rules of the Iowa Department of Natural Resources (department) that govern the operation of a facility in connection with this permit are published in Part 567 of the Iowa Administrative Code (IAC) in Chapters 60-65, 67, and 121. Reference to the term “rule” in this permit means the designated provision of Part 567 of the IAC. Reference to the term “CFR” means the Code of Federal Regulations.
2. **LIMIT DEFINITIONS** -
 - (a) 7 day average means the arithmetic mean (average) of pollutant parameter values for samples collected in a period of seven consecutive days. The first 7-day period shall begin with the first day of the month. *{567 IAC 60.2}*
 - (b) 30 day average means the arithmetic mean of pollutant parameter values for samples collected in a period of 30 consecutive days. *{567 IAC 60.2}*
 - (c) Daily maximum means the total discharge by mass, volume, or concentration during a twenty-four hour period. *{567 IAC 60.2}*
3. **MONITORING AND RECORDS OF OPERATION** -
 - (a) Electronic reporting. Records of operation required by this permit shall be electronically submitted to the department within 15 days following the close of the monthly reporting period, in accordance with the monitoring requirements incorporated in this permit, unless an approval for paper submittal of records of operation has been obtained in accordance with 567 IAC 63.7(2).
 - (b) Maintenance of records. You shall retain for a minimum of three years all paper and electronic records of monitoring activities and results including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records. *{567 IAC 63.2(3)}*
 - (c) Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than two years, or both. *{40 CFR 122.41(j)(5)}*
4. **USE OF CERTIFIED LABORATORIES** - Analyses of wastewater, groundwater or sewage sludge that are required to be submitted as a result of this permit must be performed by a laboratory certified by the State of Iowa. Routine, on-site monitoring for pH, temperature, dissolved oxygen, total residual chlorine and other pollutants that must be analyzed immediately upon sample collection, physical measurements, and operational performance monitoring specified in 567 IAC 63.3(4) are excluded from this requirement. *{567 IAC 63.1}*
5. **DUTY TO PROVIDE INFORMATION** - You must furnish to the director, within a reasonable time, any information the director may request to determine compliance with this permit or determine whether cause exists for amending, revoking and reissuing, or terminating this permit, in accordance with 567 IAC 64.3(11)“c”. You must also furnish to the director, upon request, copies of any records required to be kept by this permit. If you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, you must promptly submit such facts or information. If you become aware that you failed to submit any relevant facts in any report to the director, including records of operation, you shall promptly submit such facts or information. *{567 IAC 60.4(2)“a”, 567 IAC 63.7(6), 40 CFR 122.41(h)}*
6. **DUTY TO REAPPLY AND PERMIT CONTINUATION** - If you wish to continue to discharge after the expiration date of this permit, you must file a complete application for reissuance at least 180 days prior to the expiration date of this permit. If a timely and sufficient application is submitted, this permit will remain in effect until the department makes a final determination on the permit application. *{567 IAC 64.8(1), Iowa Code 17A.18}*
7. **DUTY TO COMPLY** - You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Iowa Code and the Clean Water Act and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Issuance of this permit does not relieve you of the responsibility to comply with all local, state and federal laws, ordinances, regulations or other legal requirements applying to the operation of your facility. *{567 IAC 64.7(4)“E”, 40 CFR 122.41(a)}*
8. **DUTY TO MITIGATE** - You shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. *{567 IAC 64.7(7)“i”, 40 CFR 122.41(d)}*
9. **PROPER OPERATION AND MAINTENANCE** - All facilities and control systems shall be operated as efficiently as possible and maintained in good working order. A sufficient number of staff, adequately trained and knowledgeable in the operation of your facility, shall be retained at all times. Adequate laboratory controls and appropriate quality assurance procedures shall be provided to maintain compliance with the conditions of this permit. *{567 IAC 64.7(7)“f”, 40 CFR 122.41(e)}*
10. **SIGNATORY REQUIREMENTS** - Applications, discharge monitoring reports, or other information submitted to the department in connection with this permit must be signed and certified in accordance with 567 IAC 64.3(8).
11. **TRANSFER OF TITLE OR OWNER ADDRESS CHANGE** - If title to your facility, or any part of it, is transferred, the new owner shall be subject to this permit. You are required to notify the new owner of the requirements of this permit in writing prior to any transfer of title. The department shall be notified in writing within 30 days of the occurrence. No transfer of the authorization to discharge from the facility represented by the permit shall take place prior to notifying the department of the transfer of title. Whenever the address of the owner is changed, the department shall be notified in writing within 30 days of the address change. *{567 IAC 64.14}*

STANDARD CONDITIONS

- 12. PERMIT MODIFICATION, SUSPENSION OR REVOCATION** - This permit may be amended, revoked and reissued, or terminated in whole or in part for cause including, but not limited to, those specified in 567 IAC 64.3(11)“b”. This permit may be modified due to conditions or information on which this permit is based, including any new standard the department may adopt that would change the required effluent limits. If a toxic pollutant is present in your discharge and more stringent standards for toxic pollutants are established under Section 307(a) of the Clean Water Act, this permit will be modified in accordance with the new standards. The filing of a request for a permit amendment, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. *{567 IAC 64.3(11)“d”, 64.7(7)“b” and “g”, 40 CFR 122.62(a)(6)}*
- 13. TWENTY-FOUR HOUR REPORTING** - You shall report any noncompliance that may endanger human health or the environment, including, but not limited to, violations of maximum daily limits for any toxic pollutant (listed as toxic in Section 307(a)(1) of the Clean Water Act) or hazardous substance (as designated in 40 CFR Part 116 pursuant to 311 of the Act). Information shall be provided orally to the appropriate regional field office of the department within 24 hours from the time you become aware of the circumstances. A written submission that includes a description of noncompliance and its cause; the period of noncompliance including exact dates and times; whether the noncompliance has been corrected or the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent a reoccurrence of the noncompliance must be provided to the appropriate field office within 5 days of the occurrence. *{567 IAC 63.12, 40 CFR 122.41(l)(6)}*
- 14. OTHER NONCOMPLIANCE** - You shall report all instances of noncompliance not reported under Condition #13 at the time discharge monitoring reports are submitted. The report shall contain the information listed in Condition #13. You shall give advance notice to the appropriate regional field office of the department of any planned activity which may result in noncompliance with permit requirements. Notice is required only when previous notice has not been given to any other section of the department. *{567 IAC 63.7(5), 63.14 and 63.15, 40 CFR 122.41(l)(7)}*
- 15. INSPECTION OF PREMISES, RECORDS, EQUIPMENT, METHODS AND DISCHARGES** - You are required to permit authorized personnel to:
- (a) Enter upon the premises where a regulated facility or activity is located or conducted or where records are kept under conditions of this permit;
 - (b) Provide access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - (c) Inspect, at reasonable times, any facilities, equipment, practices or operations regulated or required under this permit; and
 - (d) Sample or monitor, at reasonable times, to assure compliance or as otherwise authorized by the Clean Water Act.
- {567 IAC 64.7(7)“c”, 40 CFR 122.41(i)}*
- 16. NOTICE OF CHANGED CONDITIONS** - You are required to notify the director of any changes in existing conditions or information on which this permit is based, including, but not limited to, the following:
- (a) If your facility is a publicly owned treatment works (POTW) or otherwise accepts waste for treatment from an indirect discharger or industrial contributor, you must notify the director if there is any substantial change in the volume or character of pollutants being introduced to the POTW by an indirect discharger or industrial contributor. See 567 IAC 64.3(5) and 64.7(7)“d” for further requirements. *{40 CFR 122.42(b)}*
 - (b) If your facility has a manufacturing, commercial, mining, or silviculture discharge, you must notify the director as soon as you know or have reason to believe that any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in this permit. *{40 CFR 122.42(a)}*
 - (c) You must notify the director if you have begun or will begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant which was not reported in the permit application. *{40 CFR 122.21(g)(9)}*
- 17. PLANNED CHANGES** - You shall give notice to the appropriate regional field office of the department 30 days prior to any planned physical alterations or additions to the permitted facility. Facility expansions, production increases, or process modifications which result in new or increased discharges of pollutants must be reported by submission of a new permit application. If any modification of, addition to, or construction of a disposal system is to be made, you must first obtain a written construction permit from this department. In addition, no construction activity that will result in disturbance of one acre or more shall be initiated without first obtaining coverage under NPDES General Permit No. 2.
- Notice is required only when:
- (a) Notice has not been given to any other section of the department;
 - (b) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as defined in 567 IAC 60.2;
 - (c) The alteration or addition results in a significant change in sludge use or disposal practices; or
 - (d) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in the permit.
- {567 IAC 63.13, 567 IAC 64.2 and 64.7(7)“a”}*
- 18. FAILURE TO SUBMIT FEES** - This permit may be revoked, in whole or in part, if the appropriate permit fees are not submitted within thirty (30) days of the date of notification that such fees are due. *{567 IAC 64.16(1)}*

STANDARD CONDITIONS

- 19. BYPASSES** - “Bypass” means the diversion of waste streams from any portion of a treatment facility or collection system. A bypass does not include internal operational waste stream diversions that are part of the design of the treatment facility, maintenance diversions where redundancy is provided, diversions of wastewater from one point in a collection system to another point in a collection system, or wastewater backups into buildings that are caused in the building lateral or private sewer line. **{567 IAC 60.2}**
- (a) Prohibition. Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited, in accordance with 567 IAC 63.6(1). The department may not assess a civil penalty against a permittee for a bypass if the permittee has complied with all of the following:
 - i. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - iii. The permittee submitted notices as required by 567 IAC 63.6.
 - (b) Anticipated bypass. Except for bypasses that occur as a result of mechanical failure or acts beyond the control of the owner or operator of a waste disposal system (unanticipated bypasses), the owner or operator shall obtain written permission from the department prior to any discharge of sewage or wastes from a waste disposal system not authorized by this permit. The Director may approve an anticipated bypass after considering its adverse effects if the Director determines that it will meet the three conditions listed above and a request for bypass has been submitted to the appropriate regional field office of the department at least ten days prior to the expected event, in accordance with the requirements listed in 567 IAC 63.6(2).
 - (c) Unanticipated bypass. In the event that a bypass or upset occurs without prior notice having been provided pursuant to 567 IAC 63.6(2) or as a result of mechanical failure or acts beyond the control of the owner or operator, the owner or operator of the treatment facility or collection system shall notify the department by telephone as soon as possible but not later than 24 hours after the onset or discovery in accordance with the requirements in 567 IAC 63.6(3). A written submission describing the bypass shall also be provided within five days of the time the permittee becomes aware of the bypass, in accordance with the requirements in 567 IAC 63.6(3)“d”.
 - (d) Reporting. Bypasses shall be reported in accordance with 567 IAC 63.6.
{567 IAC 63.6}
- 20. UPSETS** - “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (a) Effect of an upset. An upset constitutes an affirmative defense to the assessment of a civil penalty for noncompliance with technology-based permit effluent limitations if the requirements of paragraph (b) of this condition are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
 - (b) Conditions necessary for demonstration of an upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed operating logs or other relevant evidence, that:
 - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - ii. The permitted facility was at the time being properly operated;
 - iii. The permittee submitted notice of the upset to the department in accordance with 567 IAC 63.6(3); and
 - iv. The permittee complied with any remedial measures required by the department in accordance with 567 IAC 63.6(6)“b”(4).
 - (c) Burden of Proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.
{567 IAC 63.6}
- 21. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE** - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. **{567 IAC 64.7(7)“j”, 40 CFR 122.41(c)}**
- 22. PROPERTY RIGHTS** - This permit does not convey any property rights of any sort or any exclusive privilege. **{567 IAC 64.4(3)“b”, 40 CFR 122.41(g)}**
- 23. EFFECT OF A PERMIT** - Compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301, 302, 306, 307, 318, 403 and 405(a)-(b) of the Clean Water Act, and equivalent limitations and standards set out in 567 IAC Chapters 61 and 62. **{567 IAC 64.4(3)“a”}**
- 24. SEVERABILITY** - The provisions of this permit are severable. If any provision or application of any provision to any circumstance is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding.

Appendix G.2 – Leachate Volume Hauled to Oelwein

Fayette County SLF

Leachate hauled to Oelwein for treatment/disposal

2025

DATE	GALLONS
April	19,474
July	19,556
September	12,433
November	16,107

TOTAL 67,570

Appendix G.3 – Leachate Analysis

Client Sample Results

Job ID: 310-303321-1

Client: Fayette County Landfill
Project/Site: Leachate

Client Sample ID: Leachate

Lab Sample ID: 310-303321-1

Matrix: Water

Date Collected: 04/02/25 11:00

Date Received: 04/03/25 08:50

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Chlorobenzene	<0.0100		0.0100		mg/L		04/04/25 19:51	10	FE5V
Ethylbenzene	<0.0100		0.0100		mg/L		04/04/25 19:51	10	FE5V
Toluene	<0.0100		0.0100		mg/L		04/04/25 19:51	10	FE5V
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analyst
Dibromofluoromethane (Surr)	110		70 - 130				04/04/25 19:51	10	FE5V
Toluene-d8 (Surr)	89		70 - 130				04/04/25 19:51	10	FE5V
4-Bromofluorobenzene (Surr)	98		70 - 130				04/04/25 19:51	10	FE5V

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Benzoic acid	<125		125		ug/L		04/11/25 11:00	1	V7YZ
Bis(2-ethylhexyl) phthalate	<12.5		12.5		ug/L		04/11/25 11:00	1	V7YZ
4-Methylphenol (and/or 3-Methylphenol)	<12.5		12.5		ug/L		04/11/25 11:00	1	V7YZ
Phenol	<12.5		12.5		ug/L		04/11/25 11:00	1	V7YZ
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analyst
2-Fluorobiphenyl (Surr)	59		39 - 118				04/11/25 11:00	1	V7YZ
2-Fluorophenol (Surr)	51		25 - 110				04/11/25 11:00	1	V7YZ
Nitrobenzene-d5 (Surr)	60		45 - 129				04/11/25 11:00	1	V7YZ
Phenol-d5 (Surr)	47		21 - 110				04/11/25 11:00	1	V7YZ
Terphenyl-d14 (Surr)	70		12 - 144				04/11/25 11:00	1	V7YZ
2,4,6-Tribromophenol (Surr)	76		27 - 136				04/11/25 11:00	1	V7YZ

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Arsenic	0.0193		0.0100		mg/L		04/07/25 15:18	1	NFT2
Barium	0.695		0.0100		mg/L		04/07/25 15:18	1	NFT2
Cadmium	<0.00100		0.00100		mg/L		04/07/25 15:18	1	NFT2
Chromium	<0.0250		0.0250		mg/L		04/07/25 15:18	1	NFT2
Copper	<0.0250		0.0250		mg/L		04/07/25 15:18	1	NFT2
Iron	15.8		0.500		mg/L		04/07/25 15:18	1	NFT2
Lead	<0.00250		0.00250		mg/L		04/07/25 15:18	1	NFT2
Magnesium	109		2.50		mg/L		04/07/25 15:18	1	NFT2
Nickel	0.0978		0.0250		mg/L		04/07/25 15:18	1	NFT2
Selenium	<0.0250		0.0250		mg/L		04/07/25 15:18	1	NFT2
Zinc	<0.100		0.100		mg/L		04/07/25 15:18	1	NFT2

Method: 245.2 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Mercury	<0.000200		0.000200		mg/L		04/08/25 15:58	1	F5MW

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
HEM (Oil & Grease) (1664A)	<6.3	F1	6.3		mg/L		04/09/25 15:24	1	MDU9
Ammonia (350.1)	316		25.0		mg/L		04/09/25 17:38	1	ZJX4
Nitrogen, Kjeldahl (351.2)	303		50.0		mg/L		04/04/25 16:47	10	ZJX4
Total Suspended Solids (I-3765-85)	68.0		30.0		mg/L		04/04/25 12:33	1	DGU1
Biochemical Oxygen Demand (SM 5210B)	40.6		3.00		mg/L		04/03/25 10:34	1	W9YR

Eurofins Cedar Falls

Client Sample Results

Client: Fayette County Landfill
Project/Site: Leachate

Job ID: 310-303321-1

Client Sample ID: Leachate

Lab Sample ID: 310-303321-1

Date Collected: 04/02/25 11:00

Matrix: Water

Date Received: 04/03/25 08:50

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Chemical Oxygen Demand (SM 5220D)	383		250		mg/L		04/09/25 10:39	50	HE7K
Analyte	Result	Qualifier	RL	RL	Unit	D	Analyzed	Dil Fac	Analyst
pH (SM 4500 H+ B)	7.1	HF	1.0		SU		04/03/25 12:34	1	W9YR

Client Sample Results

Job ID: 310-311724-1

Client: Fayette County Landfill
Project/Site: Leachate

Client Sample ID: Leachate

Lab Sample ID: 310-311724-1

Matrix: Water

Date Collected: 07/23/25 13:00

Date Received: 07/24/25 08:25

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Chlorobenzene	<0.0100		0.0100		mg/L		07/25/25 19:28	10	WSE8
Ethylbenzene	<0.0100		0.0100		mg/L		07/25/25 19:28	10	WSE8
Toluene	<0.0100		0.0100		mg/L		07/25/25 19:28	10	WSE8
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analyst
Dibromofluoromethane (Surr)	107		76 - 130				07/25/25 19:28	10	WSE8
Toluene-d8 (Surr)	95		80 - 120				07/25/25 19:28	10	WSE8
4-Bromofluorobenzene (Surr)	107		80 - 120				07/25/25 19:28	10	WSE8

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Bis(2-ethylhexyl) phthalate	<0.0104		0.0104		mg/L		07/30/25 16:14	1	V7YZ
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analyst
Nitrobenzene-d5 (Surr)	71		39 - 140				07/30/25 16:14	1	V7YZ
2-Fluorobiphenyl (Surr)	61		33 - 126				07/30/25 16:14	1	V7YZ
Terphenyl-d14 (Surr)	73		13 - 150				07/30/25 16:14	1	V7YZ

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Arsenic	0.0170		0.00200		mg/L		07/28/25 13:54	1	NFT2
Barium	0.560		0.00200		mg/L		07/28/25 13:54	1	NFT2
Cadmium	<0.000200		0.000200		mg/L		07/28/25 13:54	1	NFT2
Copper	<0.00500		0.00500		mg/L		07/28/25 13:54	1	NFT2
Iron	23.0		0.100		mg/L		07/28/25 13:54	1	NFT2
Lead	<0.000500		0.000500		mg/L		07/28/25 13:54	1	NFT2
Magnesium	93.1		2.00		mg/L		07/29/25 16:28	4	NFT2
Zinc	<0.0200		0.0200		mg/L		07/28/25 13:54	1	NFT2

Method: 245.2 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Mercury	<0.000200		0.000200		mg/L		08/02/25 13:09	1	QTZ5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
HEM (Oil & Grease) (1664A)	<5.8		5.8		mg/L		07/25/25 12:00	1	MDU9
Ammonia (350.1)	218		46.9		mg/L		07/29/25 23:37	9.38	ZJX4
Nitrogen, Kjeldahl (351.2)	188		20.0		mg/L		07/25/25 19:56	20	ZJX4
Total Suspended Solids (I-3765-85)	72.0		60.0		mg/L		07/25/25 14:59	1	E6KR
Biochemical Oxygen Demand (SM 5210B)	32.3		3.00		mg/L		07/24/25 09:17	1	W9YR
Chemical Oxygen Demand (SM 5220D)	293		25.0		mg/L		07/31/25 10:16	5	ENB7
Analyte	Result	Qualifier	RL	RL	Unit	D	Analyzed	Dil Fac	Analyst
pH (SM 4500 H+ B)	6.9	HF	1.0		SU		07/24/25 11:50	1	W9YR

Eurofins Cedar Falls

Client Sample Results

Job ID: 310-316094-1

Client: Fayette County Landfill
Project/Site: Leachate

Lab Sample ID: 310-316094-1

Matrix: Water

Client Sample ID: Leachate

Date Collected: 09/18/25 11:30

Date Received: 09/19/25 08:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Chlorobenzene	0.00195		0.00100		mg/L		09/23/25 20:02	1	FE5V
Ethylbenzene	0.00651		0.00100		mg/L		09/23/25 20:02	1	FE5V
Toluene	<0.00100		0.00100		mg/L		09/23/25 20:02	1	FE5V
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analyst
Dibromofluoromethane (Surr)	96		76 - 130				09/23/25 20:02	1	FE5V
Toluene-d8 (Surr)	99		80 - 120				09/23/25 20:02	1	FE5V
4-Bromofluorobenzene (Surr)	98		80 - 120				09/23/25 20:02	1	FE5V

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Bis(2-ethylhexyl) phthalate	<0.0106		0.0106		mg/L		10/02/25 23:19	1	V7YZ
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analyst
Nitrobenzene-d5 (Surr)	78		39 - 140				10/02/25 23:19	1	V7YZ
2-Fluorobiphenyl (Surr)	76		33 - 126				10/02/25 23:19	1	V7YZ
Terphenyl-d14 (Surr)	58		13 - 150				10/02/25 23:19	1	V7YZ

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Arsenic	0.0193		0.00200		mg/L		10/02/25 19:50	1	NFT2
Barium	0.715		0.00200		mg/L		10/02/25 19:50	1	NFT2
Cadmium	<0.000200		0.000200		mg/L		10/02/25 19:50	1	NFT2
Copper	<0.00500		0.00500		mg/L		10/02/25 19:50	1	NFT2
Iron	24.8		0.100		mg/L		10/02/25 19:50	1	NFT2
Lead	<0.000500		0.000500		mg/L		10/02/25 19:50	1	NFT2
Magnesium	109		2.00		mg/L		10/03/25 13:40	4	NFT2
Zinc	0.146		0.0200		mg/L		10/02/25 19:50	1	NFT2

Method: 245.2 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Mercury	<0.000200		0.000200		mg/L		09/30/25 14:16	1	RLT9

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
HEM (Oil & Grease) (1664A)	<5.7		5.7		mg/L		09/29/25 08:00	1	DGU1
Ammonia as N (350.1)	214		50.0		mg/L		09/25/25 11:49	100	WZC8
Nitrogen, Kjeldahl (351.2)	216		50.0		mg/L		09/23/25 17:21	10	ZJX4
Total Suspended Solids (I-3765-85)	72.0		30.0		mg/L		09/23/25 12:45	1	DGU1
Biochemical Oxygen Demand (SM 5210B)	19.5		3.00		mg/L		09/19/25 08:51	1	W9YR
Chemical Oxygen Demand (SM 5220D)	267		25.0		mg/L		09/22/25 14:19	5	ENB7
Analyte	Result	Qualifier	RL	RL	Unit	D	Analyzed	Dil Fac	Analyst
pH (SM 4500 H+ B)	6.9	HF	1.0		SU		09/19/25 10:31	1	W9YR

Eurofins Cedar Falls

Client Sample Results

Client: Fayette County Landfill
Project/Site: Leachate

Job ID: 310-320870-1

Client Sample ID: Leachate

Lab Sample ID: 310-320870-1

Date Collected: 11/18/25 11:20

Matrix: Water

Date Received: 11/19/25 08:35

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Chlorobenzene	<0.0100		0.0100		mg/L		11/20/25 22:07	10	WSE8
Ethylbenzene	<0.0100		0.0100		mg/L		11/20/25 22:07	10	WSE8
Toluene	<0.0100		0.0100		mg/L		11/20/25 22:07	10	WSE8
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analyst
Dibromofluoromethane (Surr)	106		76 - 130				11/20/25 22:07	10	WSE8
Toluene-d8 (Surr)	95		80 - 120				11/20/25 22:07	10	WSE8
4-Bromofluorobenzene (Surr)	113		80 - 120				11/20/25 22:07	10	WSE8

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Benzoic acid	<11.1		11.1		ug/L		11/26/25 13:35	1	V7YZ
Bis(2-ethylhexyl) phthalate	<11.1		11.1		ug/L		11/26/25 13:35	1	V7YZ
4-Methylphenol (and/or 3-Methylphenol)	<11.1		11.1		ug/L		11/26/25 13:35	1	V7YZ
Phenol	<11.1		11.1		ug/L		11/26/25 13:35	1	V7YZ
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analyst
2-Fluorobiphenyl (Surr)	81		33 - 126				11/26/25 13:35	1	V7YZ
2-Fluorophenol (Surr)	69		21 - 110				11/26/25 13:35	1	V7YZ
Nitrobenzene-d5 (Surr)	85		39 - 140				11/26/25 13:35	1	V7YZ
Phenol-d5 (Surr)	56		21 - 110				11/26/25 13:35	1	V7YZ
Terphenyl-d14 (Surr)	71		13 - 150				11/26/25 13:35	1	V7YZ
2,4,6-Tribromophenol (Surr)	85		20 - 144				11/26/25 13:35	1	V7YZ

Method: 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
4,4'-DDD	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
4,4'-DDE	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
4,4'-DDT	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
Aldrin	<0.0744	*	0.0744		ug/L		12/02/25 15:10	1	BW2O
alpha-BHC	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
beta-BHC	<0.0744	*	0.0744		ug/L		12/02/25 15:10	1	BW2O
Chlordane (technical)	<2.33		2.33		ug/L		12/02/25 15:10	1	BW2O
delta-BHC	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
Dieldrin	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
Endosulfan I	<0.0744	*	0.0744		ug/L		12/02/25 15:10	1	BW2O
Endosulfan II	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
Endosulfan sulfate	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
Endrin	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
Endrin aldehyde	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
gamma-BHC (Lindane)	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
Heptachlor	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
Heptachlor epoxide	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
Methoxychlor	<0.0744		0.0744		ug/L		12/02/25 15:10	1	BW2O
Toxaphene	<2.33		2.33		ug/L		12/02/25 15:10	1	BW2O
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analyst
DCB Decachlorobiphenyl (Surr)	27		10 - 126				12/02/25 15:10	1	BW2O
Tetrachloro-m-xylene (Surr)	26		10 - 124				12/02/25 15:10	1	BW2O

Eurofins Cedar Falls

Client Sample Results

Client: Fayette County Landfill
Project/Site: Leachate

Job ID: 310-320870-1

Client Sample ID: Leachate

Lab Sample ID: 310-320870-1

Date Collected: 11/18/25 11:20

Matrix: Water

Date Received: 11/19/25 08:35

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
PCB-1016	<0.930		0.930		ug/L		12/01/25 15:53	1	BW2O
PCB-1221	<0.930		0.930		ug/L		12/01/25 15:53	1	BW2O
PCB-1232	<0.930		0.930		ug/L		12/01/25 15:53	1	BW2O
PCB-1242	<0.930		0.930		ug/L		12/01/25 15:53	1	BW2O
PCB-1248	<0.930		0.930		ug/L		12/01/25 15:53	1	BW2O
PCB-1254	<0.930		0.930		ug/L		12/01/25 15:53	1	BW2O
PCB-1260	<0.930		0.930		ug/L		12/01/25 15:53	1	BW2O
PCB-1268	<0.930		0.930		ug/L		12/01/25 15:53	1	BW2O

Surrogate	%Recovery	Qualifier	Limits	Analyzed	Dil Fac	Analyst
DCB Decachlorobiphenyl (Surr)	28		10 - 126	12/01/25 15:53	1	BW2O
Tetrachloro-m-xylene (Surr)	31		10 - 124	12/01/25 15:53	1	BW2O

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Arsenic	0.0249		0.00200		mg/L		12/04/25 16:56	1	NFT2
Barium	0.891		0.00200		mg/L		12/04/25 16:56	1	NFT2
Cadmium	<0.000200		0.000200		mg/L		12/04/25 16:56	1	NFT2
Chromium	0.00934		0.00500		mg/L		12/04/25 16:56	1	NFT2
Copper	<0.00500		0.00500		mg/L		12/04/25 16:56	1	NFT2
Iron	23.9		0.100		mg/L		12/04/25 16:56	1	NFT2
Lead	0.000536		0.000500		mg/L		12/04/25 16:56	1	NFT2
Magnesium	108		2.00		mg/L		12/05/25 17:23	4	ZRI4
Nickel	0.0786		0.00500		mg/L		12/04/25 16:56	1	NFT2
Selenium	<0.00500		0.00500		mg/L		12/04/25 16:56	1	NFT2
Zinc	<0.0200		0.0200		mg/L		12/04/25 16:56	1	NFT2

Method: 245.2 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Mercury	<0.000200		0.000200		mg/L		11/25/25 09:38	1	RLT9

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
HEM (Oil & Grease) (1664A)	<6.0	F1	6.0		mg/L		12/01/25 08:00	1	P5BG
Ammonia as N (350.1)	228		50.0		mg/L		11/26/25 11:46	100	WZC8
Nitrogen, Kjeldahl (351.2)	266		20.0		mg/L		11/20/25 18:50	20	ZJX4
Sulfate (D516-16)	50.8		25.0		mg/L		11/25/25 14:36	5	WZC8
Total Suspended Solids (I-3765-85)	86.0		30.0		mg/L		11/20/25 06:53	1	DGU1
Total Dissolved Solids (SM 2540C)	2240		250		mg/L		11/19/25 11:20	1	TGN5
Chloride (SM 4500 Cl- E)	711		20.0		mg/L		11/25/25 11:12	10	WZC8
Biochemical Oxygen Demand (SM 5210B)	33.7	b	3.00		mg/L		11/19/25 09:08	1	W9YR
Chemical Oxygen Demand (SM 5220D)	288		25.0		mg/L		11/24/25 11:43	5	ENB7
Total Organic Carbon (SM 5310C)	110		10.0		mg/L		11/26/25 01:02	10	HE7K
Analyte	Result	Qualifier	RL	RL	Unit	D	Analyzed	Dil Fac	Analyst
pH (SM 4500 H+ B)	6.9	HF	1.0		SU		11/19/25 11:26	1	W9YR

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