2024 ANNUAL WATER QUALITY REPORT

FOR THE

JONES COUNTY SANITARY LANDFILL

53-SDP-1-76C
JONES COUNTY, IOWA

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

February 2025

HLW
HLW Engineering Group
Engineering *Management*

6038-23A.320

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Certification

Prepared by:  Date: 1-15-2025

Printed: Todd Whipple, CPG

Section 1.0 Background Information

1.1 Report Format

Table 1 through Table 16 are attached to this report and satisfy the IDNR requirement to provide the tables to meet the IDNR format requirements (Special Provision 5.g.) included in Revised Permit #7, dated October 4, 2024 (Doc #111013).

1.2 Report Priority

Review of water quality data is considered low priority. This report concludes that detection, assessment, and corrective action monitoring should continue in accordance with the Permit.

Exceedances of the Prediction Limits continue to be detected at MW-6. MW-6 remains in the Assessment Monitoring network.

MW-15 is designated as a Supplemental Well and continues to demonstrate impact for arsenic, cobalt, and benzene. MW-22 is the designated attenuation zone point of compliance (AZPOC) well located beyond the limits of impact and is the effective point of compliance for the facility. Arsenic, cobalt, and benzene are undetected or detected below the site prediction limits at MW-22 and the Upper Confidence Limit for each compound is below groundwater protection standards (GWPS).

Corrective action monitoring will continue at MW-15 in accordance with the Permit.

1.3 Period of Report Coverage

Water quality data evaluation is based on a running compilation of data beginning April 20, 2015. A variance was approved August 28, 2012 (Doc #73888) and authorized the facility to conduct groundwater monitoring in accordance with IAC 567-113.10(4) and 113.10(5). Statistical evaluations herein are based on the 2024 water quality data collected April 8, 2024; June 13, 2024; and October 8, 2024.

1.4 Current Site Map

Figure 1 and Figure 2 are attached illustrating the current site features, monitoring well locations, vent locations, and gas monitoring locations.

1.5 Site Status and Applicable Rules

Site Location

The Jones County Sanitary Landfill is located on about 50 acres in NE 1/4 SE 1/4 sec. 36, T. 85 N., R. 3 W., Jones County, Iowa (Figure 1). The landfill was closed in October 2007. The facility operates under the Iowa Department of Natural Resources (IDNR) Permit Number 53-SDP-01-76C.

Landfill Layout

The site is situated in gently rolling terrain and adjacent properties are cultivated farm ground. Surface runoff from the site follows site topography and flows radially from the closed landfill area. The site drainage ultimately ends up in Mineral Creek to the south of the site.

The facility includes a closed landfill area that was closed in 2007 with a 4' soil cap. The Transfer Station is located approximately 1,000 feet north of the closed landfill facility.

Applicable Rules

Groundwater monitoring at the site is conducted in accordance with Iowa Administrative Code (IAC) 567-113 as per the variance approved August 28, 2012 (Doc #73888).

1.6 Summary of Hydrologic Monitoring System Plan (HMSP)

The HMSP includes seven (7) monitoring wells in accordance with Revised Permit #7, dated October 4, 2024 (Doc #111013). MW-12 is the designated background well for the facility. Downgradient monitoring wells include MW-6, MW-11, MW-16, MW-20, and MW-22. MW-15 is included as a Supplemental well within the attenuation zone plume. Figure 3 is the Groundwater Contour Map for the site.

Corrective Action Monitoring Points related to the approved Corrective Action Plan (CAP) include leachate piezometer LPZ-6 and the twelve (12) gas vents (E1-E6 and W1-W6) associated with the vent trenches (Figure 4). Since the remedy is documented as completed, the HMSP has been changed removing LPZ-6 and the twelve (12) gas vents from the HMSP (see Special Provision 5.a of Revised Permit #7, dated October 4, 2024 (Doc #111013)).

Monitoring wells MW-4, MW-18, MW-19, and MW-21 are retained for water elevation measurements. The Site Plan and the approved monitoring network are illustrated on Figure 1 and Figure 2. The current HMSP is summarized in Table 1. The HMSP Implementation Schedule for 2025 is itemized in 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

Current water elevation data is included on Table 4. Historic water elevation data is included in the Table 4A. The maximum depth to water and the minimum depth to water are included in the tables. The Groundwater Contour Map (Figure 3) dated October 2024 is included with this report. The Groundwater Contour Map illustrates the water table surface and the effects of the topography.

Well Depth & Sedimentation
Well depth measurements were made on October 8, 2024. Review of the well depth data included on Table 4 indicates that well sedimentation is estimated to be less than one (1) foot at all site monitoring wells.

Well Recharge Rates & Chemistry
The originally measured horizontal hydraulic conductivity testing results (1991) for each site monitoring well is included on Table 4. The horizontal hydraulic conductivities ranged between 10^{-4} cm/sec and 10^{-7} cm/sec.

Field recovery data recorded April 8, 2024 indicated that the monitoring wells recovered to at least 90% recovery within 6 hours after purging. The exception was at MW-12 and MW-16, where greater than 24 hours were required for the wells to recover. Field recovery data recorded April 8, 2024 (Table 4) is similar to the findings recorded on April 4, 2022

Well recovery information indicates that 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 surfaces across the site, it appears that the semi-annual water elevation data is sufficient to adequately monitor the hydrologic condition of the site. Further, the wells are interpreted to be appropriately located to detect any impact, should it occur. No changes or modifications to the site monitoring wells are recommended.

Section 2.0 Reporting Period Monitoring Activities

Prior to August 28, 2012, monitoring was performed according to Iowa Administrative Code 567-103 and 113 that predates current IAC 567, Chapter 113. For a summary of testing performed under the previous rule see document #82296. In addition, full Appendix II samples were collected from five (5) of the seven (7) HMSP monitoring wells in March, 2009. A summary of the Appendix II sample collection events at each well is included in Table 2. A comprehensive summary of all sampling episodes to date is included on the Table 2A.

Field sampling information for April 8, 2024; June 13, 2024; and October 8, 2024 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 April 20, 2015 and October 8, 2024 is included on Table 9.

2.1 Current Detection Monitoring Activities

The background well is MW-12. Downgradient detection monitoring wells for this facility include MW-11, MW-16, MW-20, and MW-22. It is recognized that inclusion of an additional background monitoring well would better represent spatial variability that may exist across the facility.

2.2 Current Assessment Monitoring Activities

Assessment monitoring wells include MW-6. MW-6 has had four (4) rounds of full Appendix II sampling performed to date, with the most recent collected on April 8, 2024. Full Appendix II sampling is scheduled for April, 2029 (Table 2).

2.3 Corrective Action Monitoring

The Closed Landfill has been retrofitted with a leachate collection toe drain system on the north and east sides of the fill in order to control seeps. The landfill base slopes down from west to east. Note that the leachate collection toe drain system is located downgradient of MW-15. The leachate collection toe drain system has not been accepted by IDNR as a Corrective Action related to water quality at MW-15.

Monitoring Well MW-15 is designated as a Supplemental Monitoring Point within the attenuation zone approved as a part of the corrective action plan (CAP). MW-22 is the AZPOC monitoring well located beyond the attenuation zone and is now the effective point of compliance for the east side of the landfill.

Time Series Plots are utilized to evaluate changes in water quality over time at Supplemental Well MW-15.

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 Jones County Sanitary Landfill, First Semi-Annual Monitoring Event in 2024, dated June, 2024 is included in Appendix B.1. The Groundwater Statistics Report for the Jones County Sanitary Landfill, Second Semi-Annual Monitoring Event in 2024, dated October, 2024 is included in Appendix B.2.

The Keystone Analytical Reports for the laboratory testing April 8, 2024; June 13, 2024; and October 8, 2024 are included in Appendix C.

QUALITY ASSURANCE/QUALITY CONTROL

A blind duplicate sample was collected at MW-11 during the April 8, 2024 sampling episode. A blind duplicate was collected at MW-22 during the October 8, 2024 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 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 for April 8, 2024 and October 8, 2024 were 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 # 80715). A TSS and Field Turbidity Evaluation Report was prepared and submitted on August 18, 2015 (Doc# 84119) and was approved by IDNR on September 16, 2016 (Doc #87164). The TSS and Field Turbidity Evaluation Report includes a recommendation to retain only the data collected by "No-Purge" methods beginning April 20, 2015. The background data utilized in the current statistical evaluation is indeed restricted to data collected from April 20, 2015 to the present.

A summary table of field measured turbidity is included in Appendix D. The background data collected by "No-Purge" methods is documented to have field turbidity measurements that fall in the range of 0.18 to 4.46 NTU and meets the turbidity goals stated in the July 10, 2014, unnumbered Permit Amendment and Memo that was issued by the IDNR regarding turbidity (Doc # 80715).

Upgradient Data, Table 1, Attachment B, to the Spring and Fall 2024 Statistical Evaluation Reports (Appendix B.1 and B.2) include a summary of the background data. The site prediction limits established in the Spring and Fall 2024 Statistical Evaluation Reports (Appendix B.1 and B.2) are based on the validated background. The calculated Prediction Limits are summarized on Table 5, Attachment B, to the Spring and Fall 2024 Statistical Evaluation Reports (Appendix B.1 and B.2) and in Table 5 herein.

GROUNDWATER PROTECTION STANDARDS (GWPS)

The Statewide Standards for Protected Groundwater as published in IAC 567, Chapter 137, are utilized as the Groundwater Protection Standards (GWPS) for all compounds, except cobalt. Table 5 indicates that the prediction limit for cobalt *exceeds* the published IAC 567, Chapter 137 Statewide Standard:

Compound	***Prediction Limit***	***IAC 137 GWPS***
Cobalt	2.6 ug/L	2.1 ug/L

The Site-Specific GWPS should not be set lower than the Site Prediction Limit calculated from the site background data. For this report, the prediction limit of 2.6 ug/L is utilized as the Site-

Specific GWPS for cobalt at this site. For all other compounds the published IAC 567, Chapter 137 Statewide Standard are utilized as the GWPS.

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 Method Reporting Limit, 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* prediction limit in 2024.

MW-11, MW-16, MW-20, and MW-22 remain in the detection monitoring system.

Prediction limit exceedances are recorded at MW-6 which is already included in the assessment monitoring system. Table 7 includes an on-going summary of compound detections that exceed the prediction limits (highlighted in light brown) at MW-6.

Exceedances of the Prediction Limit at a well that is in the Assessment Monitoring System, or the Corrective Action 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 letter serves as notice to the operating record in accordance with IAC 567-113.10(5)c.

A summary of current inorganic prediction limit exceedances is included on page 3 of each respective Otter Creek Report (Appendix B.1 and B.2). A summary of current VOC SSI is included on page 4 of the respective Otter Creek Reports (Appendix B.1 and B.2). Table 1, Attachment C to the Statistical Evaluation Report completed following the October, 2024 sampling event (Appendix B.2) is a comprehensive summary of historic VOC detections that exceed the prediction limit (set at the laboratory method reporting limit).

ASSESSMENT MONITORING SUMMARY

Special Provision 5f of the Revised Permit #7, dated October 4, 2024 (Doc #111013) allows a five (5) year frequency for full Appendix II sampling (due again in 2029). The on-going supplemental sampling includes Appendix I plus all detected Appendix II compounds per 113.10(6)B.2.

Dichlorodifluoromethane and bis (2-ethylhexyl)phthalate are the only compounds detected to date beyond the Appendix I list of testing parameters. When detected, dichlorodifluoromethane

and bis (2-ethylhexyl) phthalate are inconsistent and the follow-up testing does not verify that the compounds persist. The supplemental sampling for dichlorofluoromethane and bis (2-ethylhexyl)phthalate will not occur in 2025. The full Appendix II sampling at MW-6 is scheduled to occur during the April, 2029 sampling episode (Table 2).

MW-15 is designated as a Supplemental Well and there is no requirement for ongoing sampling for the full Appendix II list.

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.

STATISTICALLY SIGNIFICANT LEVELS (SSL)

The compounds with detections that exceed site prediction limits (see Table 6 and Table 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 require the plume of impact to be defined in the horizontal and vertical directions and require completion of an Assessment of Corrective Action (ACM).

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. A yellow highlight in Table 7 would indicate an exceedance of the GWPS. Wells included in the 95% LCL evaluation are limited to MW-6, the only well where an SSI has been recorded.

There are no SSL recorded for the facility. IDNR standard Tables 8, 10, and 11 are not required based on the absence of SSL at the site. However, as required by the IDNR comment letter dated October 4, 2024 (Doc #111012), Table 10 is added to the report and includes evaluation of SSI and SSL at MW-6, MW-15, and MW-22.

DELINEATION & ASSESSMENT OF CORRECTIVE MEASURES (ACM)

Preliminary plume delineation for arsenic, cobalt, and benzene in the vicinity of MW-15 was submitted July 25, 2014 (Doc# 80862). The findings document that the extent of impact in the horizontal and vertical directions is limited. Review of the water quality results at MW-15 for 2016-2024 confirm that the site conditions are unchanged.

An Assessment of Corrective Measures (ACM) Report was submitted to IDNR on November 27, 2019 (Doc #96470) and approved by IDNR on May 5, 2020 (Doc #97672). The Corrective Action Plan dated July 9, 2020 (Doc #98246) for the selected remedy was approved in Revised Permit #4, dated August 14, 2020 (Doc #98248). Construction of the selected remedy (gas vent trenches) was completed in April, 2021. Construction documentation was submitted to IDNR on

May 7, 2021 (Doc #100434). The construction documentation was approved by Revised Permit #5, dated May 13, 2021 (Doc #100487).

CORRECTIVE ACTION MONITORING & EVALUATIONS

MW-15 is a Supplemental Well within the attenuation zone and MW-22 is the designated attenuation zone point of compliance (AZPOC). The results from MW-15 are to be evaluated to gauge the effectiveness of the remedy over time.

Although MW-15 is not a compliance point for the site, water quality within the attenuation zone is required to be monitored for changes over time as attenuation progresses. Time Series Plots for MW-15 are included in Appendix G and illustrate decreasing trends for several parameters (cobalt, 1,4-dichlorobenzene, benzene, chloroethane, ethylbenzene, and xylenes).

Compliance is monitored at MW-22. Arsenic, cobalt, and benzene at MW-22 (AZPOC) are undetected or detected below the respective prediction limits for arsenic, cobalt, and benzene.

The remedy was approved August 14, 2020, so the remedy has reached completion. Revised Permit #7, dated October 4, 2024 (Doc #111013) approves the successful completion of the remedy and amends the required Corrective Action Monitoring. Monitoring of leachate quality at LPZ-6 and gas concentration monitoring at the vent trenches is no longer required.

Dissolved methane, ethane, ethene and alkalinity and pH are evaluated in the impacted well (Supplemental Well MW-15). The recorded concentrations are tabulated and graphed in Table 12.

Section 4.0 Leachate Collection System Performance Evaluation

Leachate System Performance

As per Special Provision X.11 of the Closure Permit dated September 4, 2008 (Doc# 30396), the Jones County Sanitary Landfill is exempt from installing a leachate collection system based on the completed and certified site risk assessment. However, to control visual surface seeps a leachate/groundwater collection system was installed in the fall of 1994. The initial collection system extends along the entire east side of the site (the landfill base slopes from west to east) with a series of collection laterals spaced at approximately 100-foot intervals extending into the waste mass. The system was extended from the northeast corner to the northwest corner of the site in 1998. The perimeter leachate collection system was designed to control surface leachate seeps and not necessarily designed to lower leachate levels within the landfill. A lift station is located at the low point along the east waste boundary and pumps the collected leachate into a sump located near the leachate loadout. From the sump the leachate is pumped to a 10,000-gallon underground leachate storage tank. A second 10,000-gallon leachate tank was installed and connected to the initial tank with a gravity pipe (total leachate storage capacity is 20,000 gallons). The facility received two Notice of Violations from IDNR in 2024 due to issues with the leachate storage and loadout system – see additional discussion under *Performance Evaluation* below.

A replacement pump with a dial-up alarm system was installed in the leachate lift station in 2017. Cleanouts were also installed on the leachate force main to allow future cleaning of the force main as needed. A pump in the leachate pump station was replaced in 2020.

A map is included in Appendix H showing the approximate locations of the leachate collection system.

Special Provision 12.c. of Revised Permit #6 (Doc #102804) requires leachate level measurements to be completed semi-annually in LPZ-6. The location of LPZ-6 is shown on the figures in this report. Current and historical measurements of LPZ-6 are summarized in Table 13.

Based on the above measurements, there appears to be leachate mounding within the waste mass which is typical for closed facilities. The leachate collection system is a perimeter collection drain as opposed to an underdrain system and has been effective in controlling leachate seepage. Note that leachate thickness values typically range from 3 to 9 feet, depending upon the season and the year. Depth to the base of LPZ-6 was measured by HLW in 2015, 2018, 2020, and 2022.

Leachate Treatment and Testing
The collected leachate is pumped into tanker trucks and hauled to the Cedar Rapids Water Pollution Control Facility (WPCF) for treatment and disposal. In 2024, approximately 115,500 gallons of leachate were hauled to the Cedar Rapids WPCF. The Cedar Rapids WPCF does not require a leachate analysis for disposal.

Leachate Line Cleaning
The LCP lines were cleaned in the Summer of 2023. As per IDNR regulations, the lines should be cleaned every 3 years (next cleaning will be tentatively scheduled for 2026).

Performance Evaluation
The facility received a Notice of Violation (NOV) from IDNR on June 25, 2024 and another NOV on September 23, 2024 related to the leachate storage and loadout system. Karl Taylor, Director, Jones County Solid Waste, submitted the required written response to the NOV's on October 9, 2024 (Doc #111038) and the NOV's were further addressed in the Fall Semi-Annual Engineer's Inspection report dated October 18, 2024 (Doc #111100). A contractor has been working on the repairs and Mr. Taylor reported that the work should be completed within the next two weeks. A follow up discussion on the leachate storage and loadout system will be included in the Spring Semi-Annual Engineer's Inspection report, currently scheduled for April 2025.

Section 5.0 Gas Monitoring

Explosive gas monitoring was conducted in 2024 per 113.9(2) and Special Provision 10 of the Revised Permit #7, dated October 4, 2024 (Doc #111013). Gas Monitoring was performed at a

semi-annual frequency. The following ambient air and subsurface monitoring points are included in the approved GMSP, as illustrated on Figure 1 and Figure 2.

GP-1 -	subsurface
GP-2 -	subsurface
GP-3 -	subsurface
GP-4	subsurface
MW-6 -	subsurface
MW-11 -	subsurface
Old Office -	breathing zone
Old Shop -	breathing zone
Site Perimeter -	breathing zone

A summary table of gas monitoring is included as Table 14. Table 14 includes an assessment of the exposed screens at MW-6, MW-11, GP-1, GP-2, GP-3, and GP4.

Explosive gas concentrations are recorded as percent lower explosive limit (%LEL) and were below actionable levels during monitoring episodes.

Section 6.0 Recommendations

This report concludes that detection, assessment, and corrective action monitoring should continue in accordance with the approved HMSP. MW-11, MW-12, MW-16, MW-20, and MW-22 should remain in detection monitoring. MW-6 should remain in Assessment Monitoring. MW-15 is a Supplemental Monitoring Well.

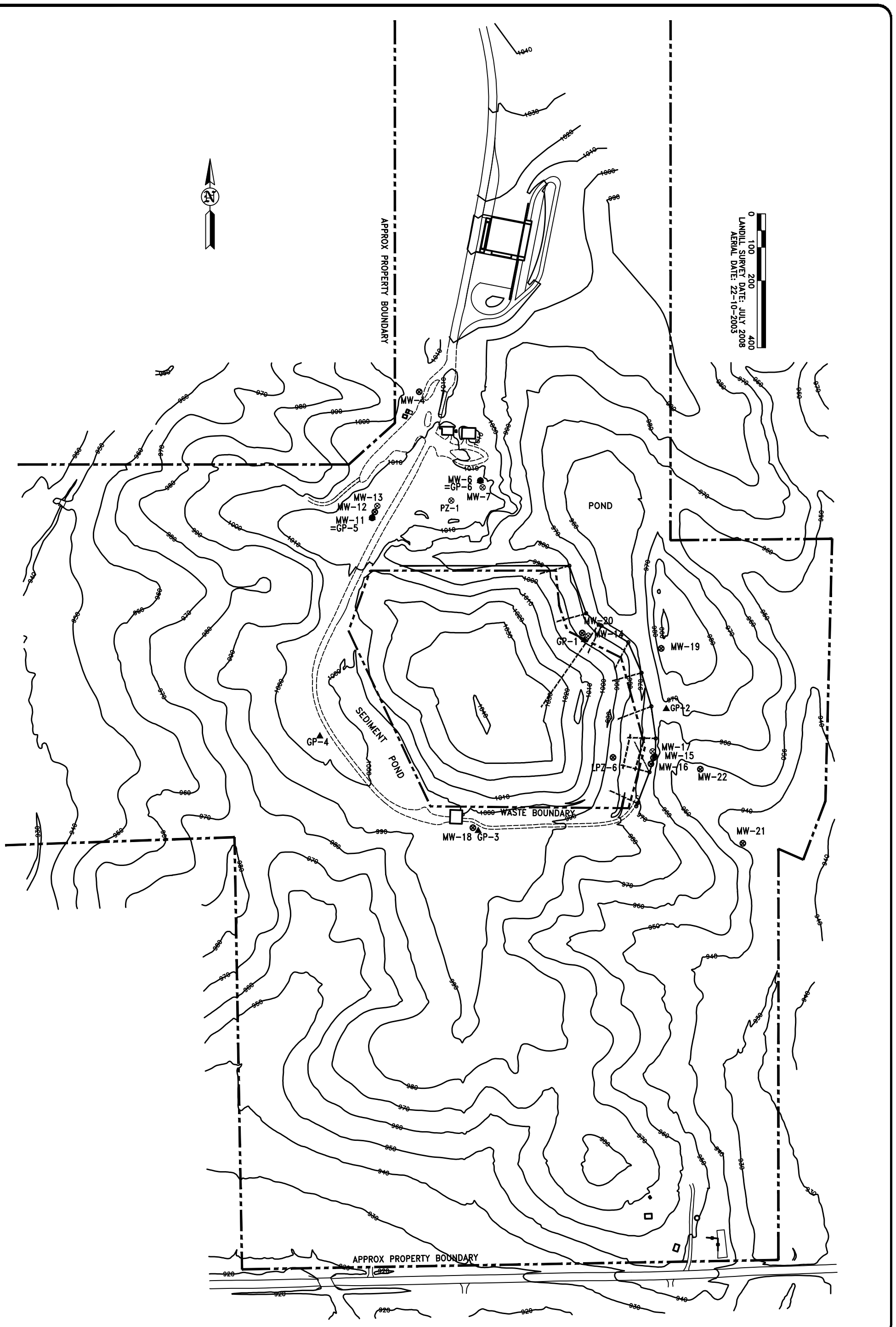
Complete the repairs to the leachate storage and loadout system.

Continue to haul leachate to the Cedar Rapids WPCF to maintain adequate storage in the leachate storage tanks.

Leachate lines should be cleaned in 2026.

Gas monitoring should continue in accordance with the permit provisions and the GMSP.

Figures



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

SITE PLAN
TOTAL PROPERTY

JONES COUNTY SANITARY LANDFILL
ANAMOSA, IOWA

FIGURE: 1

REVISION	NO.	DATE

DRAWN	PROJECT NO.	DATE
DRA	6038	12-12-24

0 100 200 400

LANDILL SURVEY DATE: JULY 2008
AERIAL DATE: 22-10-2003

APPROX PROPERTY BOUNDARY

MW-4
MW-6
=GP-6
MW-7
PZ-1
MW-13
MW-12
MW-11
=GP-5
POND
MW-20
MW-14
GP-1
MW-19
GP-2
CORRECTIVE ACTION
VENT TRENCHES
SEE FIGURE 4
SEDIMENT POND
GP-4
MW-17
MW-15
MW-16
LPZ-6
MW-22
WASTE BOUNDARY
MW-18 GP-3
MW-21

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

SITE PLAN – LANDFILL VICINITY AND GAS PROBE LOCATION MAP

JONES COUNTY SANITARY LANDFILL
ANAMOSA, IOWA

FIGURE: 2

REVISION	NO.	DATE

DRAWN	PROJECT NO.	DATE
DRA	6038	12-12-24

WATER ELEVATION OCTOBER 8, 2024	
WELL	ELEV.
MW-4	994.18
MW-6	989.51
MW-11	998.32
MW-12	998.38
MW-15	951.99
MW-16	943.98
MW-18	984.28
MW-19	960.50
MW-20	968.84
MW-21	931.93
MW-22	939.17
LPZ-6	961.59

0 100 200 400

LANDILL SURVEY DATE: JULY 2008
AERIAL DATE: 22-10-2003

APPROX PROPERTY BOUNDARY

MW-4
MW-6
MW-11
MW-12
MW-18
MW-19
MW-20
MW-21
MW-22
LPZ-6
MW-15
MW-16

POND

SEDIMENT POND

WASTE BOUNDARY

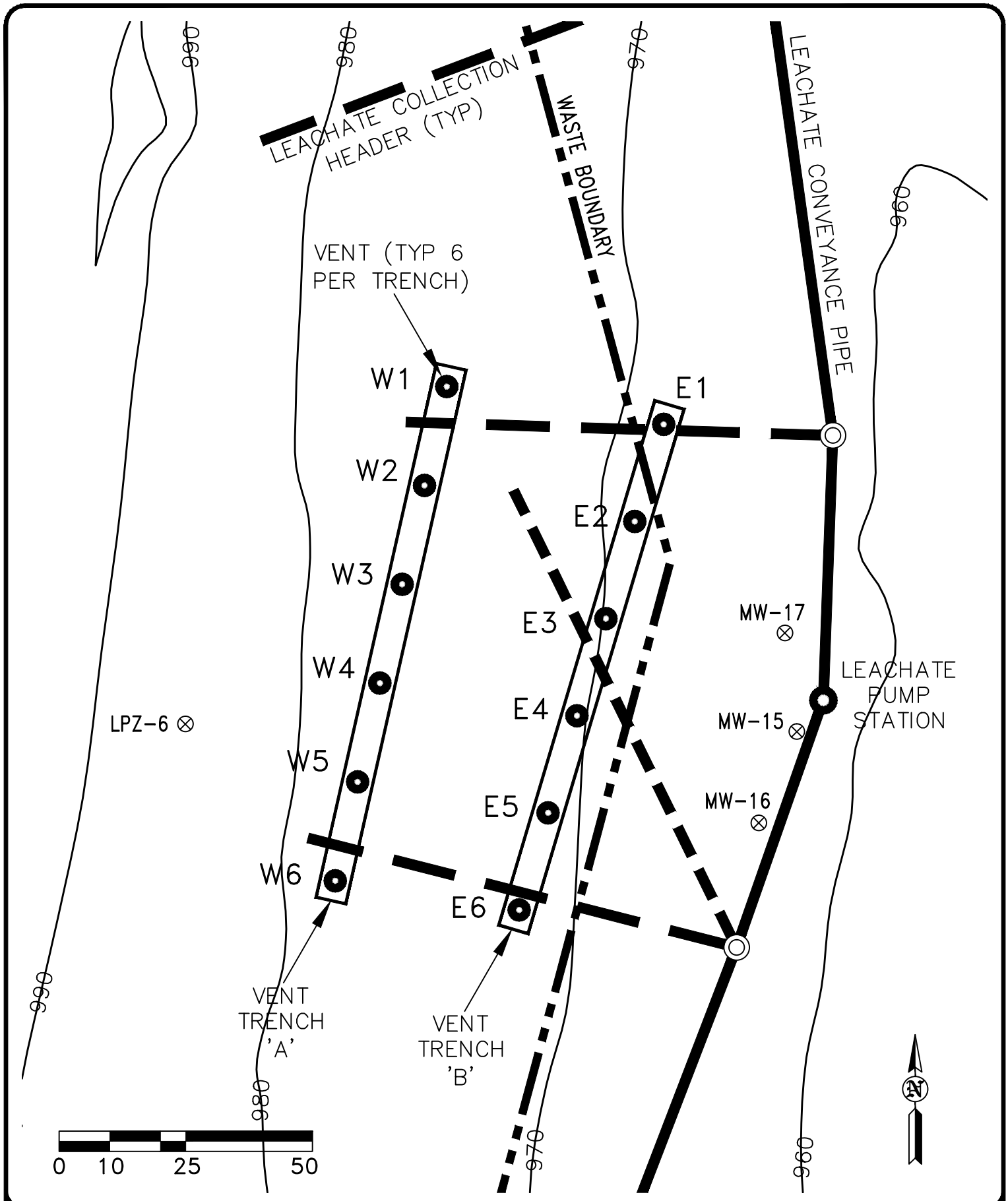
HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146

GROUNDWATER CONTOURS

JONES COUNTY SANITARY LANDFILL
ANAMOSA, IOWA

FIGURE: 3

REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6038	DATE 12-12-24



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CORRECTIVE ACTION VENT TRENCHES

JONES COUNTY SANITARY LANDFILL
ANAMOSA, IOWA

FIGURE: 4

REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6038	DATE 12-12-24

Tables
(in IDNR Format)

Table Index

Table 1 – Monitoring Program Summary

Table 1
Monitoring Program Summary
Annual Water Quality Report
Jones County Sanitary Landfill
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Monitoring Well	Formation	Current Monitoring Program	Change for next sampling event	Historic - Constituents w/ SSI	Current Spring - Constituents w/ SSI	Current Fall - Constituents w/ SSI	Historic - Constituents w/ SSL	Current Spring - Constituents w/ SSL	Current Fall - Constituents w/ SSL	Total # of Samples in each monitoring program since April 20, 2015		
										Detection	Assessment	Corrective Action
MW-12 (b)	Glacial Till	Background	NC	None	None	None	None	None	None	21	0	0
MW-6	Glacial Till	Assessment	NC	**barium, cadmium, cobalt, copper, nickel, bis(2ethylhexyl)phthalate, dichlorofluoromethane**	**bis(2ethylhexyl)phthalate**	**barium**	None	None	None	0	21	0
MW-11	Glacial Till	Detection	NC	None	None	None	None	None	None	20	0	0
MW-15	Glacial Till	**Supplemental Well**	NC	**N/A**	**N/A**	**N/A**	**arsenic, cobalt, benzene**	**N/A**	**N/A**	0	0	20
MW-16	Glacial Till	Detection	NC	None	None	None	None	None	None	20	0	0
MW-20	Glacial Till	Detection	NC	None	None	None	None	None	None	20	0	0
MW-22	Glacial Till	**AZPOC Well - detection**	NC	None	None	None	None	None	None	20	0	0

Table 2 – Monitoring Program Implementation Schedule

Table 2
Monitoring Program Implementation Schedule
Annual Water Quality Report
Jones County Sanitary Landfill
Permit No. 53-SDP-01-76C

Monitoring Well	Designated Use	Recent Sampling Dates and Constituents	Upcoming Sampling Dates and Constituents		Full Appendix II Sample Dates	
			April, 2025	October, 2025	Previously Collected	Next Event
MW-12 (b)	Background		Appendix I	Appendix I	March, 2009	N/A
MW-6	Assessment		Appendix I	Appendix I	March, 2009; March, 2014; April, 2019; April, 2024	April, 2029
MW-11	Detection	**See Table 2A**	Appendix I	Appendix I		N/A
MW-15	Supplemental		Appendix I (1)	Appendix I	March, 2009; March, 2013; March, 2014; April, 2019	N/A
MW-16	Detection		Appendix I	Appendix I		N/A
MW-20	Detection		Appendix I	Appendix I	March, 2009	N/A
MW-22	AZPOC - Detection		Appendix I	Appendix I	March, 2009	N/A
LPZ-6	---		---	---		
Vent E1-E6 & W1-W6	---		---	---		

(b) background well

(1) = dissolved methane, ethane, and ethene and alkalinity and pH.

(2) = arsenic (total), cobalt (total), ammonia (N), sulfate, chloride, TDS, BOD5

Table 2A – Summary of Well Testing to Date

Table 2A -- Itemized Summary of Hydrologic Monitoring (to date)
Expanded list, [benzene, chloroethane, chlorobenzene, 1,4 dichlorobenzene, ethylbenzene, toluene and xylenes, and metals – arsenic, barium, cadmium, chromium, cobalt, copper, lead, nickel, thallium, vanadium, and zinc]; App I, Appendix I; App II, Appendix II; A, Appendix I related.

2005

WELL	March	September
MW-6	e	e and f
MW-11	e	e and f
MW-12	e	e and f
MW-15	e	e and f
	arsenic & benzene	App I
MW-16	e	e and f
MW-20	e	e and f
MW-21		e and f + arsenic & benzene

2006-2008

	March	September
MW-6	e	e and f
MW-11	e	e and f
MW-12	e	e and f
MW-15	e	e and f
	expanded list	expanded list
MW-20	e	e and f
MW-22	d and e	d, e and f
	expanded list	expanded list

2009

	March	June	July	August	October
MW-6	d(1)+**App II**	A	A	d(2)+A	A
MW-11	d(1)			d(2)	
MW-12	d(1)+**App II**			d(2)	
MW-15	d(1)+**App II**	A	A	d(2)+A	A
	expanded list			expanded list	
MW-16	d(1)			d(2)	
MW-20	d(1)+**App II**	A	A	d(2)+A	A
MW-22	d(1)+**App II**	A	A	d(2)+A	A
	expanded list			expanded list	

2010

	March	June	September
MW-6	d(1) + A	A	d(2) + A
MW-11	d(1)		d(2)
MW-12	d(1) + A		d(2)
MW-15	d(1) + A	A	d(2) + A
	expanded list		expanded list
MW-16	d(1)		d(2)
MW-20	d(1) + A	A	d(2) + A
MW-22	d(1) + A	A	d(2) + A
	expanded list		expanded list

	March	September
2011		
MW-6	d(1) + A	d(2) + A
MW-11	d(1)	d(2)
MW-12	d(1) + A	d(2)
MW-15	d(1) + A expanded list	d(2) + A expanded list
MW-16	d(1)	d(2)
MW-20	d(1) + A	d(2) + A
MW-22	d(1) + A expanded list	d(2) + A expanded list
2012		
MW-6	d(1) + A	App I
MW-11	d(1)	App I
MW-12	d(1) + A	App I
MW-15	d(1) + A expanded list	App I
MW-16	d(1)	App I
MW-20	d(1) + A	App I
MW-22	d(1) + A expanded list	App I
2013		
MW-6	App I	App I
MW-11	App I	App I
MW-12	App I	App I
MW-15	**App II**	App I + bis(2-ethylhexyl)phthalate
MW-16	App I	App I
MW-20	App I	App I
MW-22	App I	App I
2014		
MW-6	**App II**	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane
MW-11	App I	App I
MW-12	App I	App I
MW-15	**App II**	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane
MW-16	App I	App I
MW-20	App I	App I
MW-22	App I	App I

2015

	April	July	October
MW-6	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane	bis(2-ethylhexyl)phthalate	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane
MW-11	App I		App I
MW-12	App I		App I
MW-15	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane		App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane
MW-16	App I		App I
MW-20	App I		App I
MW-22	App I		App I

2016

	April	October
MW-6	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane
MW-11	App I	App I
MW-12	App I	App I
MW-15	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane
MW-16	App I	App I
MW-20	App I	App I
MW-22	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane	NT

2017

	April	**October**
MW-6	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane
MW-11	App I	App I
MW-12	App I	App I
MW-15	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane
MW-16	App I	App I
MW-20	App I	App I
MW-22	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane

2018

	January	**April**	**October**
MW-6	Resample *Barium* *Cobalt* *nickel*	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane
MW-11	N/A	App I	App I
MW-12	N/A	App I	App I
MW-15	N/A	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane
MW-16	N/A	App I	App I
MW-20	N/A	App I	App I
MW-22	Resample Zinc	Arsenic Cobalt Benzene	Arsenic Cobalt Benzene

2019

	April	**October**
MW-6	**App II**	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane
MW-11	App I	App I
MW-12	App I	App I
MW-15	**App II**	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane methane, ethane, ethene, alkalinity, pH
MW-16	App I	App I
MW-20	App I	App I
MW-22	Arsenic Cobalt Benzene	Arsenic Cobalt Benzene

2020	April	October
MW-6	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane
MW-11	App I	App I
MW-12	App I	App I
MW-15	App I bis(2-ethylhexyl)phthalate dichlorodifluoromethane	App I, Note 1
MW-16	App I	App I
MW-20	App I	App I
MW-22	Arsenic Cobalt Benzene	App I
LPZ-6	-----	App I VOC, Note 1, Note 2

2021	April	October
MW-6	App I	App I
MW-11	App I	App I
MW-12	App I	App I
MW-15	App I	App I, Note 1
MW-16	App I	App I
MW-20	App I	App I
MW-22	App I	App I
LPZ-6	App I VOC, Note 2	App I VOC, Note 1, Note 2

2022	April	October
MW-6	App I	App I
MW-11	App I	App I
MW-12	App I	App I
MW-15	App I, Note 1	App I
MW-16	App I	App I
MW-20	App I	App I
MW-22	App I	App I
LPZ-6	App I VOC, Note 1, Note 2	App I VOC

2023	April	October
MW-6	App I	App I
MW-11	App I	App I
MW-12	App I	App I
MW-15	App I, Note 1	App I
MW-16	App I	App I
MW-20	App I	App I
MW-22	App I	App I
LPZ-6	App I VOC, Note 1, Note 2	App I VOC

Note 1 = dissolved methane, ethane, ethene, pH, alkalinity
Note 2 = As (total), Co (Total), ammonia (N), sulfate, chloride, TDS, BOD5

2024	April	October
MW-6	**App II**	App I+bis(2-ethylhexyl)phthalate
MW-11	App I	App I
MW-12	App I	App I
MW-15	App I, Note 1	App I
MW-16	App I	App I
MW-20	App I	App I
MW-22	App I	App I
LPZ-6	App I VOC, Note 1, Note 2	---

Note 1 = dissolved methane, ethane, ethene, pH, alkalinity
Note 2 = As (total), Co (Total), ammonia (N), sulfate, chloride, TDS, BOD5

Table 3 – Monitoring Well Maintenance Performance Reevaluation Schedule

Table 3
Monitoring Well Maintenance and Performance Revaluation Schedule
Annual Water Quality Report
Jones County Sanitary Landfill
Permit No. 53-SDP-01-76C

Compliance with:	Monitoring Calendar Years									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
567 IAC 113.10(2)"f"(1) high and low water levels (biennial)	X	x	X	X	X	X	X	X	X	X
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths (historic = 1 per 5 years; current = (biennial)	X	X	X	X	X	X	X	X	X	X
567 IAC 113.10(2)"f"(3) well depths (annual)	X	X	X	X	X	X	X	X	X	X
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry (biennial)	X		X		X	X		X		X
Waste separation from ground water 113.6(2)"I"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Compliance with:	Monitoring Calendar Years									
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
567 IAC 113.10(2)"f"(1) high and low water levels (biennial)	X	X	P	P	P	P	P	P	P	P
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths (historic = 1 per 5 years; current = (biennial)	X	X	P	P	P	P	P	P	P	P
567 IAC 113.10(2)"f"(3) well depths (annual)	X	X	P	P	P	P	P	P	P	P
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry (biennial)		X		P		P		P		P
Waste separation from ground water 113.6(2)"I"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

X = completed
P = Planned
N/A = Not Applicable

Table 4 – Monitoring Well Maintenance Performance Reevaluation Summary

Table 4
Monitoring Well Maintenance and Performance Summary
Annual Water Quality Report
Jones County Sanitary Landfill
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Well	Top of casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth Discrepancy (ft)	Hydraulic Cond. (cm/sec)/date	Most Recent Recharge Rate	
					4/8/2024	**10/8/2024**			**4/8/2024**	Change
MW-12	1018.98	981.11	47.87	Groundwater Level (ft)	20.11	20.6	0.17	0.0000005 1991	Full recovery in >24 hour	None percieved
				Groundwater Elevation (Ft MSL)	998.87	998.38				
				Measured Well Depth (ft)	47.7	47.7				
				Submerged (+) or Exposed screen (-)	17.76	17.27				
MW-6	1012.71	995.93	36.78	Groundwater Level (ft)	15.66	23.2	0.13	0.00001 1991	Full recovery in 4 hour	None percieved
				Groundwater Elevation (Ft MSL)	997.05	989.51				
				Measured Well Depth (ft)	36.65	36.65				
				Submerged (+) or Exposed screen (-)	1.12	-6.42				
MW-11	1019.23	1007.83	26.4	Groundwater Level (ft)	18.42	20.91	0.05	0.000003 1991	Full recovery in 4 hour	None percieved
				Groundwater Elevation (Ft MSL)	1000.81	998.32				
				Measured Well Depth (ft)	26.35	26.35				
				Submerged (+) or Exposed screen (-)	-7.02	-9.51				
MW-15	964.04	944.4	29.81	Groundwater Level (ft)	10.65	12.05	0.21	0.0001 1991	Full recovery in 2 hours	None percieved
				Groundwater Elevation (Ft MSL)	953.39	951.99				
				Measured Well Depth (ft)	29.6	29.6				
				Submerged (+) or Exposed screen (-)	8.99	7.59				
MW-16	964.58	920.91	53.67	Groundwater Level (ft)	18	20.6	0.07	0.0000001 1991	Full recovery in >24 hour	None percieved
				Groundwater Elevation (Ft MSL)	946.58	943.98				
				Measured Well Depth (ft)	53.6	53.6				
				Submerged (+) or Exposed screen (-)	25.67	23.07				
MW-20	977.6	969.5	18.1	Groundwater Level (ft)	1.77	8.76	0.1	0.000001 1991	Full recovery in 4 hour	None percieved
				Groundwater Elevation (Ft MSL)	975.83	968.84				
				Measured Well Depth (ft)	18	18				
				Submerged (+) or Exposed screen (-)	6.33	-0.66				
MW-22	950.92	941.42	19.5	Groundwater Level (ft)	5.33	11.75	0.1	No Record 2006	Full recovery in 2 hour	None percieved
				Groundwater Elevation (Ft MSL)	945.59	939.17				
				Measured Well Depth (ft)	19.4	19.4				
				Submerged (+) or Exposed screen (-)	4.17	-2.25				

Table 4A – Historic Water Level Summary

Table 4A
Water Level Summary
Annual Water Quality Report
Jones County Sanitary Landfill
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Monitor Well/ TOC Elev. (ft)	Screened Interval Depth (ft)	Elev. (ft)	Water Level	12/28/92	3/30/93	6/28/93	9/22/93	3/31/94
MW-6	19.0	991.7	Depth (ft)	12.74	16.57	11.80	12.72	15.16
1012.71	34.0	976.7	Elev. (ft)	999.97	996.14	1000.91	999.99	997.55
MW-11	8.0	1008.7	Depth (ft)	14.21	19.20	11.78	15.48	19.28
1019.23	23.0	993.7	Elev. (ft)	1005.02	1000.03	1005.02	1003.75	999.95
MW-12	35.0	981.8	Depth (ft)	14.05	19.54	---	15.45	19.11
1018.98	45.0	971.8	Elev. (ft)	1004.93	999.44	---	1003.53	999.87
MW-15	8.0	954.2	Depth (ft)	16.92	18.18	14.83	17.11	16.49
964.04	28.0	934.2	Elev. (ft)	947.12	945.86	949.21	946.93	947.55
MW-16	41.0	921.4	Depth (ft)	18.09	19.82	---	18.19	18.14
964.58	51.0	911.4	Elev. (ft)	946.49	944.76	964.58	946.39	946.44
MW-20	5.5	970.1	Depth (ft)	5.61	3.11	5.23	4.60	4.21
977.60	15.5	960.1	Elev. (ft)	971.99	974.49	972.37	973.00	973.39
MW-22	7.0	941.4	Depth (ft)	---	---	---	---	---
950.92	17.0	931.4	Elev. (ft)	---	---	---	---	---
MW-4	14.0	995.3	Depth (ft)	13.54	17.61	14.50	14.89	17.58
1011.36	29.0	980.3	Elev. (ft)	997.82	993.75	996.86	996.47	993.78
MW-18	9.1	987.3	Depth (ft)					
999.46	24.1	972.3	Elev. (ft)					
MW-19	32.0	956.5	Depth (ft)					
988.53	47.0	941.5	Elev. (ft)					
MW-21	16.5	929.7	Depth (ft)					
943.10	23.5	919.7	Elev. (ft)					
LPZ-6	17.3	963.3	Depth (ft)					
980.57	27.3	953.3	Elev. (ft)					
				12/28/92	3/30/93	6/28/93	9/22/93	3/31/94

Table 4A
Water Level Summary
Annual Water Quality Report
Jones County Sanitary Landfill
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Monitor Well/ TOC Elev. (ft)	Screened Interval Depth (ft)	Elev. (ft)	Water Level	Date 10/5/94	4/15/95	9/19/95	4/2/96	9/5/96	2/28/97	9/11/97	3/21/98
MW-6	19.0	991.7	Depth (ft)	18.60	15.40	17.60	17.60	16.85	16.16	18.65	12.28
1012.71	34.0	976.7	Elev. (ft)	994.11	997.31	995.11	995.11	995.86	996.55	994.06	1000.43
MW-11	8.0	1008.7	Depth (ft)	21.18	19.14	19.80	21.50	19.40	19.72	20.49	15.12
1019.23	23.0	993.7	Elev. (ft)	998.05	1000.09	999.43	997.73	999.83	999.51	998.74	1004.11
MW-12	35.0	981.8	Depth (ft)	21.31	21.10	19.88	21.70	19.39	19.85	20.46	16.5
1018.98	45.0	971.8	Elev. (ft)	997.67	997.88	999.10	997.28	999.59	999.13	998.52	1002.48
MW-15	8.0	954.2	Depth (ft)	18.43	16.84	18.50	18.35	19.90	18.33	18.42	12.75
964.04	28.0	934.2	Elev. (ft)	945.61	947.20	945.54	945.69	944.14	945.71	945.62	951.29
MW-16	41.0	921.4	Depth (ft)	19.95	19.70	19.82	19.80	19.49	19.05	19.51	16.09
964.58	51.0	911.4	Elev. (ft)	944.63	944.88	944.76	944.78	945.09	945.53	945.07	948.49
MW-20	5.5	970.1	Depth (ft)	5.53	3.98	6.10	4.25	10.31	6.05	6.18	2.63
977.60	15.5	960.1	Elev. (ft)	972.07	973.62	971.50	973.35	967.29	971.55	971.42	974.97
MW-22	7.0	941.4	Depth (ft)	—	—	—	—	—	—	—	—
950.92	17.0	931.4	Elev. (ft)	—	—	—	—	—	—	—	—
MW-4	14.0	995.3	Depth (ft)	16.73	12.86	17.42	18.10	16.20	16.92	15.80	11.71
1011.36	29.0	980.3	Elev. (ft)	994.63	998.50	993.94	993.26	995.16	994.44	995.56	999.65
MW-18	9.1	987.3	Depth (ft)								
999.46	24.1	972.3	Elev. (ft)								
MW-19	32.0	956.5	Depth (ft)								
988.53	47.0	941.5	Elev. (ft)								
MW-21	16.5	929.7	Depth (ft)								
943.10	23.5	919.7	Elev. (ft)								
LPZ-6	17.3	963.3	Depth (ft)								
980.57	27.3	953.3	Elev. (ft)								
				10/5/94	4/15/95	9/19/95	4/2/96	9/5/96	2/28/97	9/11/97	3/21/98

Table 4A
Water Level Summary
Annual Water Quality Report
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Monitor Well/ TOC Elev. (ft)	Screened Interval Depth (ft)	Elev. (ft)	Water Level	Date 9/12/98	3/20/99	9/3/99	3/10/00	9/16/00	3/22/01	9/11/01
MW-6	19.0	991.7	Depth (ft)	15.86	14.73	18.36	20.49	21.49	11.75	20.93
1012.71	34.0	976.7	Elev. (ft)	996.85	997.98	994.35	992.22	991.22	1000.96	991.78
MW-11	8.0	1008.7	Depth (ft)	18.71	18.74	20.99	22.16	20.38	13.26	21.39
1019.23	23.0	993.7	Elev. (ft)	1000.52	1000.49	998.24	997.07	998.85	1005.97	997.84
MW-12	35.0	981.8	Depth (ft)	18.5	19.23	21.01	22.48	20.34	15.31	21.26
1018.98	45.0	971.8	Elev. (ft)	1000.48	999.75	997.97	996.50	998.64	1003.67	997.72
MW-15	8.0	954.2	Depth (ft)	18.81	13.99	18.38	18.59	18.55	11.21	18.23
964.04	28.0	934.2	Elev. (ft)	945.23	950.05	945.66	945.45	945.49	952.83	945.81
MW-16	41.0	921.4	Depth (ft)	18.83	16.44	18.83	19.86	19.15	15.34	19.20
964.58	51.0	911.4	Elev. (ft)	945.75	948.14	945.75	944.72	945.43	949.24	945.38
MW-20	5.5	970.1	Depth (ft)	7.21	4.08	9.27	4.76	4.73	1.75	8.83
977.60	15.5	960.1	Elev. (ft)	970.39	973.52	968.33	972.84	972.87	975.85	968.77
MW-22	7.0	941.4	Depth (ft)	—	—	—	—	—	—	—
950.92	17.0	931.4	Elev. (ft)	—	—	—	—	—	—	—
MW-4	14.0	995.3	Depth (ft)	15.66	13.94	16.98	18.09	16.65	10.37	16.83
1011.36	29.0	980.3	Elev. (ft)	995.70	997.42	994.38	993.27	994.71	1000.99	994.53
MW-18	9.1	987.3	Depth (ft)							
999.46	24.1	972.3	Elev. (ft)							
MW-19	32.0	956.5	Depth (ft)							
988.53	47.0	941.5	Elev. (ft)							
MW-21	16.5	929.7	Depth (ft)							
943.10	23.5	919.7	Elev. (ft)							
LPZ-6	17.3	963.3	Depth (ft)							
980.57	27.3	953.3	Elev. (ft)							
				9/12/98	3/20/99	9/3/99	3/10/00	9/16/00	3/22/01	9/11/01

Table 4A
Water Level Summary
Annual Water Quality Report
Jones County Sanitary Landfill
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Monitor Well/ TOC Elev. (ft)	Screened Interval Depth (ft)	Elev. (ft)	Water Level	Date 3/16/02	9/12/02	4/1/03	9/5/03	3/25/04	9/3/04	3/17/05	9/1/05	4/6/06
MW-6	19.0	991.7	Depth (ft)	16.39	15.96	20.70	23.59	12.35	18.81	18.06	26.02	19.85
1012.71	34.0	976.7	Elev. (ft)	996.32	996.75	992.01	989.12	1000.36	993.90	994.65	986.69	992.86
MW-11	8.0	1008.7	Depth (ft)	21.52	19.06	22.36	21.80	18.30	20.36	21.15	22.69	22.70
1019.23	23.0	993.7	Elev. (ft)	997.71	1000.17	996.87	997.43	1000.93	998.87	998.08	996.54	996.53
MW-12	35.0	981.8	Depth (ft)	22.11	19.39	22.53	21.84	19.60	20.39	21.12	22.89	23.11
1018.98	45.0	971.8	Elev. (ft)	996.87	999.59	996.45	997.14	999.38	998.59	997.86	996.09	995.87
MW-15	8.0	954.2	Depth (ft)	15.45	18.47	18.50	18.52	12.78	18.25	15.61	18.58	13.80
964.04	28.0	934.2	Elev. (ft)	948.59	945.57	945.54	945.52	951.26	945.79	948.43	945.46	950.24
MW-16	41.0	921.4	Depth (ft)	18.84	17.92	19.53	19.44	17.22	18.74	16.91	19.93	18.54
964.58	51.0	911.4	Elev. (ft)	945.74	946.66	945.05	945.14	947.36	945.84	947.67	944.65	946.04
MW-20	5.5	970.1	Depth (ft)	2.46	6.86	2.53	9.38	1.98	4.85	3.29	7.76	2.02
977.60	15.5	960.1	Elev. (ft)	975.14	970.74	975.07	968.22	975.62	972.75	974.31	969.84	975.58
MW-22	7.0	941.4	Depth (ft)	---	---	---	---	---	---	---	---	5.10
950.92	17.0	931.4	Elev. (ft)	---	---	---	---	---	---	---	---	945.82
MW-4	14.0	995.3	Depth (ft)	15.42	16.09	18.02	16.98	13.13	15.07	16.7	16.08	13.53
1011.36	29.0	980.3	Elev. (ft)	995.94	995.27	993.34	994.38	998.23	996.29	994.66	995.28	997.83
MW-18	9.1	987.3	Depth (ft)									
999.46	24.1	972.3	Elev. (ft)									
MW-19	32.0	956.5	Depth (ft)									
988.53	47.0	941.5	Elev. (ft)									
MW-21	16.5	929.7	Depth (ft)									
943.10	23.5	919.7	Elev. (ft)									
LPZ-6	17.3	963.3	Depth (ft)									
980.57	27.3	953.3	Elev. (ft)									
				3/16/02	9/12/02	4/1/03	9/5/03	3/25/04	9/3/04	3/17/05	9/1/05	4/6/06

Table 4A
Water Level Summary
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Monitor Well/ TOC Elev. (ft)	Screened Interval Depth (ft)	Elev. (ft)	Water Level	Date 9/7/06	3/14/07	9/19/07	3/25/08	9/5/08	3/6/09	8/31/09	3/15/10
MW-6	19.0	991.7	Depth (ft)	21.79	15.62	20.81	13.25	20.11	18.09	13.96	14.43
1012.71	34.0	976.7	Elev. (ft)	990.92	997.09	991.90	999.46	992.60	994.62	998.75	998.28
MW-11	8.0	1008.7	Depth (ft)	9.29	14.63	20.71	12.72	19.87	19.81	11.69	13.17
1019.23	23.0	993.7	Elev. (ft)	1009.94	1004.60	998.52	1006.51	999.36	999.42	1007.54	1006.06
MW-12	35.0	981.8	Depth (ft)	19.27	18.30	20.25	13.27	19.61	19.70	13.12	14.43
1018.98	45.0	971.8	Elev. (ft)	999.71	1000.68	998.73	1005.71	999.37	999.28	1005.86	1004.55
MW-15	8.0	954.2	Depth (ft)	20.45	12.99	18.55	11.51	18.51	15.84	12.09	11.54
964.04	28.0	934.2	Elev. (ft)	943.59	951.05	945.49	952.53	945.53	948.20	951.95	952.50
MW-16	41.0	921.4	Depth (ft)	18.69	17.89	19.35	15.28	18.49	17.91	17.51	15.29
964.58	51.0	911.4	Elev. (ft)	945.89	946.69	945.23	949.30	946.09	946.67	947.07	949.29
MW-20	5.5	970.1	Depth (ft)	4.24	1.89	4.78	1.95	4.88	2.73	1.74	2.20
977.60	15.5	960.1	Elev. (ft)	973.36	975.71	972.82	975.65	972.72	974.87	975.86	975.40
MW-22	7.0	941.4	Depth (ft)	8.95	2.77	10.38	2.81	10.50	5.40	3.16	2.89
950.92	17.0	931.4	Elev. (ft)	941.97	948.15	940.54	948.11	940.42	945.52	947.76	948.03
MW-4	14.0	995.3	Depth (ft)	15.35	16.67	15.98	14.51	15.09	17.42	11.81	12.29
1011.36	29.0	980.3	Elev. (ft)	996.01	994.69	995.38	996.85	996.27	993.94	999.55	999.07
MW-18	9.1	987.3	Depth (ft)								
999.46	24.1	972.3	Elev. (ft)								
MW-19	32.0	956.5	Depth (ft)								
988.53	47.0	941.5	Elev. (ft)								
MW-21	16.5	929.7	Depth (ft)								
943.10	23.5	919.7	Elev. (ft)								
LPZ-6	17.3	963.3	Depth (ft)								
980.57	27.3	953.3	Elev. (ft)								

	9/7/06	3/14/07	9/19/07	3/25/08	9/5/08	3/6/09	8/31/09	3/15/10

Table 4A
Water Level Summary
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Monitor Well/ TOC Elev. (ft)	Screened Interval Depth (ft)	Elev. (ft)	Water Level	Date 9/14/10	3/11/11	9/7/11	3/14/12	9/1/12	4/1/13	9/9/13
MW-6	19.0	991.7	**Depth (ft)**	19.08	14.42	21.78	14.99	26.35	20.69	23.45
1012.71	34.0	976.7	**Elev. (ft)**	993.63	998.29	990.93	997.72	986.36	992.02	989.26
MW-11	8.0	1008.7	**Depth (ft)**	19.53	15.26	21.17	15.68	22.74	22.48	21.00
1019.23	23.0	993.7	**Elev. (ft)**	999.70	1003.97	998.06	1003.55	996.49	996.75	998.23
MW-12	35.0	981.8	**Depth (ft)**	18.94	16.13	21.04	16.60	22.73	22.65	20.80
1018.98	45.0	971.8	**Elev. (ft)**	1000.04	1002.85	997.94	1002.38	996.25	996.33	998.18
MW-15	8.0	954.2	**Depth (ft)**	18.50	11.21	18.72	11.61	19.12	11.71	18.84
964.04	28.0	934.2	**Elev. (ft)**	945.54	952.83	945.32	952.43	944.92	952.33	945.20
MW-16	41.0	921.4	**Depth (ft)**	17.25	16.18	19.17	16.39	20.65	18.09	19.36
964.58	51.0	911.4	**Elev. (ft)**	947.33	948.40	945.41	948.19	943.93	946.49	945.22
MW-20	5.5	970.1	**Depth (ft)**	7.19	2.21	7.41	2.15	9.05	2.11	9.95
977.60	15.5	960.1	**Elev. (ft)**	970.41	975.39	970.19	975.45	968.55	975.49	967.65
MW-22	7.0	941.4	**Depth (ft)**	8.43	1.80	10.50	5.24	12.66	6.39	11.06
950.92	17.0	931.4	**Elev. (ft)**	942.49	949.12	940.42	945.68	938.26	944.53	939.86
MW-4	14.0	995.3	**Depth (ft)**	16.45	13.2	15.89	13.18	16.05	18.2	17.68
1011.36	29.0	980.3	**Elev. (ft)**	994.91	998.16	995.47	998.18	995.31	993.16	993.68
MW-18	9.1	987.3	**Depth (ft)**							
999.46	24.1	972.3	**Elev. (ft)**							
MW-19	32.0	956.5	**Depth (ft)**							
988.53	47.0	941.5	**Elev. (ft)**							
MW-21	16.5	929.7	**Depth (ft)**							
943.10	23.5	919.7	**Elev. (ft)**							
LPZ-6	17.3	963.3	**Depth (ft)**							
980.57	27.3	953.3	**Elev. (ft)**							

	9/14/10	3/11/11	9/7/11	3/14/12	9/1/12	4/1/13	9/9/13

Table 4A
Water Level Summary
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Monitor Well/ TOC Elev. (ft)	Screened Interval Depth (ft)	Elev. (ft)	Water Level	Date 3/30/14	9/19/14	4/20/15	10/5/15	4/5/16	10/5/16	4/4/17	10/3/17
MW-6	19.0	991.7	Depth (ft)	20.35	15.69	18.35	19.77	16.14	18.03	14.79	23.51
1012.71	34.0	976.7	Elev. (ft)	992.36	997.02	994.36	992.94	996.57	994.68	997.92	989.20
MW-11	8.0	1008.7	Depth (ft)	22.58	16.47	21.45	21.00	16.07	19.24	16.43	21.35
1019.23	23.0	993.7	Elev. (ft)	996.65	1002.76	997.78	998.23	1003.16	999.99	1002.80	997.88
MW-12	35.0	981.8	Depth (ft)	22.70	17.09	21.50	20.93	16.11	19.02	18.33	21.16
1018.98	45.0	971.8	Elev. (ft)	996.28	1001.89	997.48	998.05	1002.87	999.96	1000.65	997.82
MW-15	8.0	954.2	Depth (ft)	12.51	16.43	16.70	19.05	14.30	17.86	11.35	20.10
964.04	28.0	934.2	Elev. (ft)	951.53	947.61	947.34	944.99	949.74	946.18	952.69	943.94
MW-16	41.0	921.4	Depth (ft)	19.20	18.59	18.70	20.41	15.96	17.89	16.26	20.04
964.58	51.0	911.4	Elev. (ft)	945.38	945.99	945.88	944.17	948.62	946.69	948.32	944.54
MW-20	5.5	970.1	Depth (ft)	2.21	4.31	1.90	6.15	2.40	5.06	1.96	10.02
977.60	15.5	960.1	Elev. (ft)	975.39	973.29	975.70	971.45	975.20	972.54	975.64	967.58
MW-22	7.0	941.4	Depth (ft)	6.51	7.00	7.00	10.98	6.25	---	4.71	12.21
950.92	17.0	931.4	Elev. (ft)	944.41	943.92	943.92	939.94	944.67	950.92	946.21	938.71
MW-4	14.0	995.3	Depth (ft)	18.35	14.46	---	16.33	15.20	16.15	14.53	17.18
1011.36	29.0	980.3	Elev. (ft)	993.01	996.90	1011.36	995.03	996.16	995.21	996.83	994.18
MW-18	9.1	987.3	Depth (ft)	12.10	11.35	15.15	15.35	11.65	13.44	11.00	17.95
999.46	24.1	972.3	Elev. (ft)	987.36	988.11	984.31	984.11	987.81	986.02	988.46	981.51
MW-19	32.0	956.5	Depth (ft)	31.59	25.65	25.95	27.04	21.33	23.15	20.72	27.44
988.53	47.0	941.5	Elev. (ft)	956.94	962.88	962.58	961.49	967.20	965.38	967.81	961.09
MW-21	16.5	929.7	Depth (ft)	4.61	5.65	4.15	8.06	4.53	---	4.10	9.69
943.10	23.5	919.7	Elev. (ft)	938.49	937.45	938.95	935.04	938.57	943.10	939.00	933.41
LPZ-6	17.3	963.3	Depth (ft)	17.00	16.58	18.49	18.40	16.80	16.87	13.95	18.40
980.57	27.3	953.3	Elev. (ft)	963.57	963.99	962.08	962.17	963.77	963.70	966.62	962.17

	3/30/14	9/19/14	4/20/15	10/5/15	4/5/16	10/5/16	4/4/17	10/3/17

Table 4A
Water Level Summary
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Monitor Well/ TOC Elev. (ft)	Screened Interval Depth (ft)	Elev. (ft)	Water Level	Date 4/10/18	10/12/18	4/16/19	9/30/19	4/7/20	10/7/20	4/22/21	10/5/21
MW-6	19.0	991.7	Depth (ft)	18.08	13.07	15.89	19.03	15.42	18.48	15.13	26.20
1012.71	34.0	976.7	Elev. (ft)	994.63	999.64	996.82	993.68	997.29	994.23	997.58	986.51
MW-11	8.0	1008.7	Depth (ft)	20.75	10.02	17.38	19.86	14.01	16.95	13.50	22.59
1019.23	23.0	993.7	Elev. (ft)	998.48	1009.21	1001.85	999.37	1005.22	1002.28	1005.73	996.64
MW-12	35.0	981.8	Depth (ft)	21.25	10.95	17.50	20.45	13.97	16.42	13.05	22.47
1018.98	45.0	971.8	Elev. (ft)	997.73	1008.03	1001.48	998.53	1005.01	1002.56	1005.93	996.51
MW-15	8.0	954.2	Depth (ft)	15.45	11.16	13.60	17.46	13.75	17.51	11.00	19.61
964.04	28.0	934.2	Elev. (ft)	948.59	952.88	950.44	946.58	950.29	946.53	953.04	944.43
MW-16	41.0	921.4	Depth (ft)	19.41	16.05	15.22	19.99	15.65	18.18	14.09	21.03
964.58	51.0	911.4	Elev. (ft)	945.17	948.53	949.36	944.59	948.93	946.40	950.49	943.55
MW-20	5.5	970.1	Depth (ft)	2.20	2.03	2.15	2.02	2.15	7.03	3.13	10.44
977.60	15.5	960.1	Elev. (ft)	975.40	975.57	975.45	975.58	975.45	970.57	974.47	967.16
MW-22	7.0	941.4	Depth (ft)	7.24	5.45	6.03	7.73	5.97	8.44	5.22	13.25
950.92	17.0	931.4	Elev. (ft)	943.68	945.47	944.89	943.19	944.95	942.48	945.70	937.67
MW-4	14.0	995.3	Depth (ft)	17.96	11.10	15.80	13.13	14.25	15.29	13.76	17.75
1011.36	29.0	980.3	Elev. (ft)	993.40	1000.26	995.56	998.23	997.11	996.07	997.60	993.61
MW-18	9.1	987.3	Depth (ft)	12.21	8.20	10.54	12.74	9.95	13.21	10.29	18.70
999.46	24.1	972.3	Elev. (ft)	987.25	991.26	988.92	986.72	989.51	986.25	989.17	980.76
MW-19	32.0	956.5	Depth (ft)	30.20	20.41	19.15	26.87	21.14	25.63	17.85	28.92
988.53	47.0	941.5	Elev. (ft)	958.33	968.12	969.38	961.66	967.39	962.90	970.68	959.61
MW-21	16.5	929.7	Depth (ft)	5.07	3.98	4.17	5.71	4.24	7.15	4.16	11.12
943.10	23.5	919.7	Elev. (ft)	938.03	939.12	938.93	937.39	938.86	935.95	938.94	931.98
LPZ-6	17.3	963.3	Depth (ft)	15.55	15.52	17.03	15.40	15.45	17.10	16.60	22.45
980.57	27.3	953.3	Elev. (ft)	965.02	965.05	963.54	965.17	965.12	963.47	963.97	958.12
				4/10/18	10/12/18	4/16/19	9/30/19	4/7/20	10/7/20	4/22/21	10/5/21

Table 4A
Water Level Summary
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Monitor Well/ TOC Elev. (ft)	Screened Interval Depth (ft)	Elev. (ft)	Water Level	4/4/22	10/5/22	4/14/23	10/18/23	4/8/24	10/8/24	Max	Min	Mean/ Std. Dev.	
MW-6	19.0	991.7	**Depth (ft)**	17.65	23.05	17.53	28.80	15.66	23.20	*28.80*	*11.75*	*18.03*	**MW-6**
1012.71	34.0	976.7	**Elev. (ft)**	995.06	989.66	995.18	983.91	997.05	989.51	*1000.96*	*983.91*	*994.68*	
MW-11	8.0	1008.7	**Depth (ft)**	19.21	20.38	17.33	23.80	18.42	20.91	*23.80*	*9.29*	*18.52*	**MW-11**
1019.23	23.0	993.7	**Elev. (ft)**	1000.02	998.85	1001.90	995.43	1000.81	998.32	*1009.94*	*996.49*	*1000.67*	
MW-12	35.0	981.8	**Depth (ft)**	20.19	20.09	17.04	23.66	20.11	20.60	*23.66*	*10.95*	*19.14*	**MW-12**
1018.98	45.0	971.8	**Elev. (ft)**	998.79	998.89	1001.94	995.32	998.87	998.38	*1008.03*	*995.87*	*999.84*	
MW-15	8.0	954.2	**Depth (ft)**	11.80	18.88	14.50	19.77	10.65	12.05	*20.45*	*11.00*	*16.20*	**MW-15**
964.04	28.0	934.2	**Elev. (ft)**	952.24	945.16	949.54	944.27	953.39	951.99	*953.04*	*943.59*	*947.84*	
MW-16	41.0	921.4	**Depth (ft)**	18.63	20.28	15.02	21.98	18.00	20.60	*21.98*	*14.09*	*18.25*	**MW-16**
964.58	51.0	911.4	**Elev. (ft)**	945.95	944.30	949.56	942.60	946.58	943.98	*964.58*	*943.55*	*946.64*	
MW-20	5.5	970.1	**Depth (ft)**	1.70	9.24	3.00	13.81	1.77	8.76	*13.81*	*1.74*	*4.65*	**MW-20**
977.60	15.5	960.1	**Elev. (ft)**	975.90	968.36	974.60	963.79	975.83	968.84	*975.86*	*967.16*	*972.95*	
MW-22	7.0	941.4	**Depth (ft)**	5.33	10.70	6.33	13.50	5.33	11.75	*13.50*	*1.80*	*7.16*	**MW-22**
950.92	17.0	931.4	**Elev. (ft)**	945.59	940.22	944.59	937.42	945.59	939.17	*950.92*	*937.67*	*943.98*	
MW-4	14.0	995.3	**Depth (ft)**	13.70	17.24	16.31	18.98	12.22	17.18	*18.98*	*10.37*	*15.50*	**MW-4**
1011.36	29.0	980.3	**Elev. (ft)**	997.66	994.12	995.05	992.38	999.14	994.18	*1011.36*	*993.01*	*996.12*	
MW-18	9.1	987.3	**Depth (ft)**	8.45	16.65	11.23	12.86	8.69	15.18	*18.70*	*8.20*	*12.74*	**MW-18**
999.46	24.1	972.3	**Elev. (ft)**	991.01	982.81	988.23	986.60	990.77	984.28	*991.26*	*980.76*	*986.72*	
MW-19	32.0	956.5	**Depth (ft)**	30.42	27.10	23.43	30.78	30.60	28.03	*31.59*	*17.85*	*24.57*	**MW-19**
988.53	47.0	941.5	**Elev. (ft)**	958.11	961.43	965.10	957.75	957.93	960.50	*970.68*	*956.94*	*963.97*	
MW-21	16.5	929.7	**Depth (ft)**	3.91	9.67	4.25	13.84	4.14	11.17	*13.84*	*3.98*	*5.76*	**MW-21**
943.10	23.5	919.7	**Elev. (ft)**	939.19	933.43	938.85	929.26	938.96	931.93	*943.10*	*931.98*	*937.70*	
LPZ-6	17.3	963.3	**Depth (ft)**	13.30	18.00	15.65	17.30	15.88	18.11	*22.45*	*13.95*	*16.97*	**LPZ-6**
980.57	27.3	953.3	**Elev. (ft)**	967.27	962.57	964.92	963.27	964.69	962.46	*966.62*	*958.12*	*963.60*	

				4/4/22	10/5/22	4/14/23	10/18/23	4/8/24	10/8/24	Max	Min	Mean/	

Table 5 – Background and GWPS Summary

Table 5
Background and GWPS Summary
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Interwell Background Well (MW-12)

Inorganics - Appendix I										
Constituent	**Units**	**Model Type**	**Samples - N**	**Detections**	**Mean**	**SD**	**Prediction Limit**	**Confidence**	**GWPS**	**Source**
Antimony (Sb)	µg/l	nonparametric	21	1			3.5000	0.98	6	SS
Arsenic (As)	µg/l	nonparametric	21	0			4.0000	0.98	10	SS
Barium (Ba)	µg/l	normal	21	**21**	259.1905	21.7178	315.3650		2000	SS
Beryllium (Be)	µg/l	nonparametric	21	0			4.0000	0.98	4	SS
Cadmium (Cd)	µg/l	nonparametric	21	0			0.8000	0.98	5	SS
Chromium (Cr)	µg/l	nonparametric	21	0			8.0000	0.98	100	SS
Cobalt (Co)	µg/l	nonparametric	21	1			2.6000	0.98	**2.6**	**Site**
Copper (Cu)	µg/l	nonparametric	21	0			4.0000	0.98	1300	SS
Lead (Pb)	µg/l	nonparametric	21	0			4.0000	0.98	15	SS
Nickel (Ni)	µg/l	nonparametric	21	3			13.4000	0.98	100	SS
Selenium (Se)	µg/l	nonparametric	21	0			4.0000	0.98	50	SS
Silver (Ag)	µg/l	nonparametric	21	0			4.0000	0.98	100	SS
Thallium (Tl)	µg/l	nonparametric	21	0			2.0000	0.98	2	SS
Vanadium (V)	µg/l	nonparametric	21	0			20.0000	0.98	35	SS
Zinc (Zn)	µg/l	nonparametric	21	6			27.2000	0.98	2000	SS

VOC - Appendix I										
Constituent	**Units**	**Model Type**	**Samples - N**	**Detections**	**Mean**	**SD**	**Prediction Limit**	**Confidence**	**GWPS**	**Source**
All	µg/l	DQR	21	0	<1	<1	<1	<1	various	SS

= Prediction limit exceeds the GWPS. A Site-Specific GWPS is warranted
see attached information for notes
* The prediction limit for thallium is artifically elevated based on the historic elevated Method Reporting Limit (MRL) of 4.0 ug/L utilized by the laboratory. The MRL is now set at 2.0 ug/L.

Table 6 – Summary of Detections

Table 6
Summary of Well/Detected Constituent Pairs that Exceed the Prediction Limit
Annual Water Quality Report
Jones County Sanitary Landfill
Permit No. 53-SDP-01-76C

Date	Well	Constituent	Units	Most recent result	Background Standard
10/8/2024	MW-6	Barium	ug/L	519	315.37
4/8/2024	MW-6	bis(2-ethylhexyl)phthalate	ug/L	32.0	6.0

Table 7 – Summary of Ongoing and Newly Identified SSI

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Jones County Sanitary Landfill
Permit No. 53-SDP-01-76C

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)	Initial Exceedance	Resamples Due	5th Background Sample
MW-6	Barium	10/5/2016	231.00	328.64	221.979	2,000	NA	NA	10/5/2016
MW-6	Barium	4/4/2017	154.00	328.64	140.273	2,000	NA	NA	10/5/2016
MW-6	Barium	10/3/2017	573.00	328.64	121.038	2,000	10/3/2017	1/3/2018	10/5/2016
MW-6	Barium	1/3/2018	613.00	328.64	121.038	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	4/10/2018	435.00	328.64	199.468	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	10/12/2018	289.00	328.64	304.596	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	4/16/2019	274.00	324.18	217.059	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	9/30/2019	409.00	321.64	255.25	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	4/7/2020	209.00	318.80	197.143	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	10/7/2020	226.00	316.46	172.911	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	4/22/2021	180.00	314.76	133.957	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	10/5/2021	497.00	322.72	104.815	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	4/4/2022	521.00	320.04	146.698	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	10/5/2022	551.00	322.78	233.850	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	4/14/2023	133.00	321.76	194.657	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	10/18/2023	431.00	319.42	184.406	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	4/8/2024	171.00	317.33	83.472	2,000	10/3/2017	NA	10/5/2016
MW-6	Barium	10/8/2024	519.00	315.37	89.363	2,000	10/3/2017	NA	10/5/2016

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Jones County Sanitary Landfill
Permit No. 53-SDP-01-76C

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)	Initial Exceedance	Resamples Due	5th Background Sample
MW-6	Cadmium	10/5/2016	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	4/4/2017	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	10/3/2017	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	1/3/2018	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	4/10/2018	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	10/12/2018	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	4/16/2019	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	9/30/2019	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	4/7/2020	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	10/7/2020	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	4/22/2021	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	10/5/2021	1.10	0.80	0.163	5	NA	NA	10/5/2016
MW-6	Cadmium	4/4/2022	<0.8	0.80	0.163	5	NA	NA	10/5/2016
MW-6	Cadmium	10/5/2022	<0.8	0.80	0.163	5	NA	NA	10/5/2016
MW-6	Cadmium	4/14/2023	<0.8	0.80	0.163	5	NA	NA	10/5/2016
MW-6	Cadmium	10/18/2023	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	4/8/2024	<0.8	0.80	0.400	5	NA	NA	10/5/2016
MW-6	Cadmium	10/8/2024	<0.8	0.80	0.400	5	NA	NA	10/5/2016

Table 7
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Permit No. 53-SDP-01-76C

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)	Initial Exceedance	Resamples Due	5th Background Sample
MW-6	Cobalt	10/5/2016	<0.8	0.80	0.000	2.8	NA	NA	10/5/2016
MW-6	Cobalt	4/4/2017	<0.8	0.80	0.400	2.8	NA	NA	10/5/2016
MW-6	Cobalt	10/3/2017	1.70	0.80	0.000	2.8	10/3/2017	1/3/2018	10/5/2016
MW-6	Cobalt	1/3/2018	1.50	0.80	0.000	2.8	10/3/2017	NA	10/5/2016
MW-6	Cobalt	4/10/2018	<0.8	0.80	0.179	2.1	10/3/2017	NA	10/5/2016
MW-6	Cobalt	10/12/2018	<0.8	0.80	0.179	2.1	10/3/2017	NA	10/5/2016
MW-6	Cobalt	4/16/2019	<0.8	0.80	0.028	2.1	10/3/2017	NA	10/5/2016
MW-6	Cobalt	9/30/2019	0.8	0.80	0.265	2.1	10/3/2017	NA	10/5/2016
MW-6	Cobalt	4/7/2020	0.9	0.80	0.316	2.1	10/3/2017	NA	10/5/2016
MW-6	Cobalt	10/7/2020	0.5	0.80	0.370	2.1	10/3/2017	NA	10/5/2016
MW-6	Cobalt	4/22/2021	0.6	0.80	0.485	2.1	10/3/2017	NA	10/5/2016
MW-6	Cobalt	10/5/2021	4.1	0.80	0.000	2.1	10/3/2017	NA	10/5/2016
MW-6	Cobalt	4/4/2022	<0.8	0.80	0.000	2.1	10/3/2017	NA	10/5/2016
MW-6	Cobalt	10/5/2022	5.3	2.60	0.000	**2.6**	10/3/2017	NA	10/5/2016
MW-6	Cobalt	4/14/2023	<0.4	2.60	0.000	**2.6**	10/3/2017	NA	10/5/2016
MW-6	Cobalt	10/18/2023	2.3	2.60	0.000	**2.6**	10/3/2017	NA	10/5/2016
MW-6	Cobalt	4/8/2024	<0.4	2.60	0.000	**2.6**	10/3/2017	NA	10/5/2016
MW-6	Cobalt	10/8/2024	2.2	2.60	0.068	**2.6**	10/3/2017	NA	10/5/2016

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Jones County Sanitary Landfill
Permit No. 53-SDP-01-76C

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)	Initial Exceedance	Resamples Due	5th Background Sample
MW-6	Copper	10/5/2016	<4	4.00	---	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	4/4/2017	<4	4.00	---	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	10/3/2017	<4	4.00	---	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	1/3/2018	<4	4.00	2.000	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	4/10/2018	<4	4.00	2.000	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	10/12/2018	<4	4.00	2.000	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	4/16/2019	<4	4.00	2.000	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	9/30/2019	<4	4.00	2.000	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	4/7/2020	<4	4.00	2.000	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	10/7/2020	<4	4.00	2.000	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	4/22/2021	<4	4.00	2.000	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	10/5/2021	<4	4.00	2.000	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	4/4/2022	<4	4.00	2.000	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	10/5/2022	6.9	4.00	0.343	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	4/14/2023	<4	4.00	0.343	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	10/18/2023	4.1	4.00	1.019	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	4/8/2024	<4	4.00	1.019	1300	10/5/2022	NA	10/5/2016
MW-6	Copper	10/8/2024	<4	4.00	2.000	1300	10/5/2022	NA	10/5/2016

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Jones County Sanitary Landfill
Permit No. 53-SDP-01-76C

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)	Initial Exceedance	Resamples Due	5th Background Sample
MW-6	Nickel	10/5/2016	<4	13.4	1.200	100	NA	NA	10/5/2016
MW-6	Nickel	4/4/2017	<4	13.4	1.002	100	NA	NA	10/5/2016
MW-6	Nickel	10/3/2017	9.3	13.4	0.604	100	NA	NA	10/5/2016
MW-6	Nickel	1/3/2018	9.4	13.4	0.604	100	NA	NA	10/5/2016
MW-6	Nickel	4/10/2018	7.5	13.4	2.959	100	NA	NA	10/5/2016
MW-6	Nickel	10/12/2018	<4	13.4	2.959	100	NA	NA	10/5/2016
MW-6	Nickel	4/16/2019	<4	13.4	0.751	100	NA	NA	10/5/2016
MW-6	Nickel	9/30/2019	8.1	13.4	0.951	100	NA	NA	10/5/2016
MW-6	Nickel	4/7/2020	<4	13.4	0.000	100	NA	NA	10/5/2016
MW-6	Nickel	10/7/2020	<4	13.4	0.000	100	NA	NA	10/5/2016
MW-6	Nickel	4/22/2021	<4	13.4	0.000	100	NA	NA	10/5/2016
MW-6	Nickel	10/5/2021	8.6	13.4	0.000	100	NA	NA	10/5/2016
MW-6	Nickel	4/4/2022	9.1	13.4	0.767	100	NA	NA	10/5/2016
MW-6	Nickel	10/5/2022	10.9	13.4	3.070	100	NA	NA	10/5/2016
MW-6	Nickel	4/14/2023	<4	13.4	3.070	100	NA	NA	10/5/2016
MW-6	Nickel	10/18/2023	10.0	13.4	3.216	100	NA	NA	10/5/2016
MW-6	Nickel	4/8/2024	<4	13.4	0.470	100	NA	NA	10/5/2016
MW-6	Nickel	10/8/2024	12.9	13.4	0.158	100	NA	NA	10/5/2016

Table 7
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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)	Initial Exceedance	Resamples Due	5th Background Sample
MW-6	Bis(2-ethylhexyl)phthalate	10/5/2016	<10	6.0	5.000	6	NA	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	4/4/2017	<10	6.0	5.000	6	NA	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	10/3/2017	10.00	6.0	3.309	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	4/10/2018	<6.0	6.0	3.309	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	10/12/2018	<6.0	6.0	3.309	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	4/16/2019	<6.0	6.0	3.309	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	9/30/2019	<6.0	6.0	3.000	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	4/7/2020	<6.0	6.0	3.000	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	10/7/2020	<6.0	6.0	3.000	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	4/22/2021	NT	6.0	3.000	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	10/5/2021	NT	6.0	3.000	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	4/4/2022	NT	6.0	3.000	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	10/5/2022	NT	6.0	3.000	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	4/14/2023	NT	6.0	3.000	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	10/18/2023	NT	6.0	3.000	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	4/8/2024	32.00	6.0	0.000	6	10/3/2017	NA	10/5/2016
MW-6	Bis(2-ethylhexyl)phthalate	10/8/2024	<13	6.0	0.000	6	10/3/2017	NA	10/5/2016

Table 7
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Permit No. 53-SDP-01-76C

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)	Initial Exceedance	Resamples Due	5th Background Sample
MW-6	dichlorodifluoromethane	10/5/2016	1.0	1.0	0.410	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	4/4/2017	<1.0	1.0	0.331	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	10/3/2017	<1.0	1.0	0.331	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	4/10/2018	<1.0	1.0	0.331	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	10/12/2018	<1.0	1.0	0.500	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	4/16/2019	<1.0	1.0	0.500	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	9/30/2019	<1.0	1.0	0.500	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	4/7/2020	<1.0	1.0	0.500	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	10/7/2020	<1.0	1.0	0.500	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	4/22/2021	NT	1.0	0.500	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	10/5/2021	NT	1.0	0.500	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	4/4/2022	NT	1.0	0.500	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	10/5/2022	NT	1.0	0.500	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	4/14/2023	NT	1.0	0.500	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	10/18/2023	NT	1.0	0.500	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	4/8/2024	<1.0	1.0	0.500	1,000	NA	NA	10/5/2016
MW-6	dichlorodifluoromethane	10/8/2024	NT	1.0	0.500	1,000	NA	NA	10/5/2016

Table 7
Summary of Ongoing & Newly Identified SSI
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Permit No. 53-SDP-01-76C

KEY:	SSI	SSL LCL>GWPS	SSL UCL>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)	Initial Exceedance	Resamples Due	5th Background Sample
MW-22	Arsenic	4/5/2016	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	4/4/2017	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	10/3/2017	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	4/10/2018	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	10/12/2018	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	4/16/2019	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	9/30/2019	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	4/7/2020	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	10/7/2020	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	4/22/2021	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	10/5/2021	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	4/4/2022	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	10/5/2022	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	4/14/2023	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	10/18/2023	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	4/8/2024	<4	4.00	2	10	NA	NA	10/5/2016
MW-22	Arsenic	10/8/2024	<4	4.00	2	10	NA	NA	10/5/2016

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KEY:	SSI	SSL LCL>GWPS	SSL UCL>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)	Initial Exceedance	Resamples Due	5th Background Sample
MW-22	Cobalt	4/5/2016	<0.8	0.80	0.4	2.8	NA	NA	10/5/2016
MW-22	Cobalt	4/4/2017	<0.8	0.80	0.4	2.8	NA	NA	10/5/2016
MW-22	Cobalt	10/3/2017	<0.8	0.80	0.4	2.8	NA	NA	10/5/2016
MW-22	Cobalt	4/10/2018	<0.8	0.80	0.4	2.8	NA	NA	10/5/2016
MW-22	Cobalt	10/12/2018	<0.8	0.80	0.4	2.1	NA	NA	10/5/2016
MW-22	Cobalt	4/16/2019	<0.8	0.80	0.4	2.1	NA	NA	10/5/2016
MW-22	Cobalt	9/30/2019	<0.8	0.80	0.4	2.1	NA	NA	10/5/2016
MW-22	Cobalt	4/7/2020	<0.4	0.80	0.4	2.1	NA	NA	10/5/2016
MW-22	Cobalt	10/7/2020	<0.4	0.80	0.4	2.1	NA	NA	10/5/2016
MW-22	Cobalt	4/22/2021	<0.4	0.80	0.2	2.1	NA	NA	10/5/2016
MW-22	Cobalt	10/5/2021	<0.4	0.80	0.2	2.1	NA	NA	10/5/2016
MW-22	Cobalt	4/4/2022	<0.4	0.80	0.2	2.1	NA	NA	10/5/2016
MW-22	Cobalt	10/5/2022	**2.5**	2.60	0.000	**2.6**	NA	NA	10/5/2016
MW-22	Cobalt	4/14/2023	<0.4	2.60	0.000	**2.6**	NA	NA	10/5/2016
MW-22	Cobalt	10/18/2023	<0.4	2.60	0.000	**2.6**	NA	NA	10/5/2016
MW-22	Cobalt	4/8/2024	<0.4	2.60	0.000	**2.6**	NA	NA	10/5/2016
MW-22	Cobalt	10/8/2024	**0.5**	2.60	0.2	**2.6**	NA	NA	10/5/2016

Table 7
Summary of Ongoing & Newly Identified SSI
Annual Water Quality Report
Jones County Sanitary Landfill
Permit No. 53-SDP-01-76C

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)	GWPS Limit (ug/L)	Initial Exceedance	Resamples Due	5th Background Sample
MW-22	Benzene	4/5/2016	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	4/4/2017	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	10/3/2017	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	4/10/2018	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	10/12/2018	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	4/16/2019	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	9/30/2019	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	4/7/2020	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	10/7/2020	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	4/22/2021	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	10/5/2021	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	4/4/2022	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	10/5/2022	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	4/14/2023	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	10/18/2023	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	4/8/2024	<1	1.0	0.5	5	NA	NA	10/5/2016
MW-22	Benzene	10/8/2024	<1	1.0	0.5	5	NA	NA	10/5/2016

Table 8 - Summary of Ongoing and Newly Identified SSL **- (Not Required)**

Table 9 – Analytical Data Summary

Table 9

Analytical Data Summary for LPZ-6

Constituents	Units	4/16/2019	10/7/2020	4/22/2021	10/5/2021	4/4/2022	10/5/2022	4/14/2023	10/18/2023	4/8/2024
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<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-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<5	<5	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1.0	6.5	6.4	6.0	2.2	6.0	5.3	2.4	9.2
2-butanone (mek)	ug/L	<5	<5	<5	<5	<10	<10	<10	<10	<10
2-hexanone (mbk)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	50.8
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity, as caco3	mg/L	623	380	442	585	370		571		562
Arsenic, total	ug/L	19.3	26.4	<4.0	13.6	13.2		7.7		20.7
Benzene	ug/L	10.5	10.6	9.4	8.8	1.2	9.3	13.6	<1.0	17.7
BOD (5 day)	mg/L		17	29	20	20				22
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium, total	mg/L	191								
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	2	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chemical oxygen demand	mg/L									156
Chloride	mg/L	98.5	106.0	102.0	237.0	20.4		114.0		169.0
Chlorobenzene	ug/L	2.7	2.4	2.0	2.0	<1.0	1.3	1.3	<1.0	1.7
Chloroethane	ug/L	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	1.2	1.3
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	9.6	17.6	8.5	17.1	6.0		2.6		6.8
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethane	ug/L		<10							
Ethene	ug/L		<10							
Ethylbenzene	ug/L	43.6	52.0	27.4	1.6	2.6	2.1	7.4	<1.0	7.6
Magnesium, total	mg/L	58								
Methane	ug/L		15300							
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nitrogen, ammonia	mg/L		9.99	2.65	7.70	2.14		4.38		13.30
pH	pH		6.6	6.6	6.5	6.8		6.4		6.5
Potassium, total	mg/L	3.1								
Sodium, total	mg/L	33.1								
Solids, total dissolved	mg/L	836	633	763	1000	400		886		908
Solids, total suspended	mg/L									104
Styrene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5
Sulfate	mg/L	84.4	20.3	78.2	9.6	46.3		16.1		20.3
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1.0	1.4	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	1.0
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<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
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	9.5	99.1	27.5	4.9	2.4	22.3	22.6	3.8	95.0

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

Table 9

Analytical Data Summary for MW-11

Constituents	Units	3/30/2014	9/19/2014	4/20/2015	10/5/2015	4/5/2016	10/5/2016	4/4/2017	10/3/2017	4/10/2018
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<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-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	20.6	<10.0
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity, as caco3	mg/L									
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	ug/L	327	283	293	309	239	265	265	265	310
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total	mg/L									
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloride	mg/L									
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	1.5	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Copper, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Magnesium, total	mg/L									
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	<4.0	6.2	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Potassium, total	mg/L									
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total	mg/L									
Solids, total dissolved	mg/L									
Solids, total suspended	mg/L		40	48						
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate	mg/L									
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<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
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	<20.0	18.8	12.4	<8.0	<8.0	<8.0	<8.0	<8.0	<20.0

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

Table 9

Analytical Data Summary for MW-11

Constituents	10/12/2018	4/16/2019	9/30/2019	12/20/2019	4/7/2020	10/7/2020	4/22/2021	10/5/2021	4/4/2022
1,1,1,2-tetrachloroethane	<1	<1	<1		<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1		<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1		<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1		<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1		<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1		<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1		<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1		<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1		<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1		<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1		<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1		<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1		<1	<1	<1	<1	<1
2-butanone (mek)	<5	<5	<5		<5	<5	<5	<5	<10
2-hexanone (mbk)	<5	<5	<5		<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5		<5	<5	<5	<5	<5
Acetone	<10.0	<10.0	<10.0		<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5		<5	<5	<5	<5	<5
Alkalinity, as caco3		715							
Antimony, total	<2	<2	<2		<2	<2	<2	<2	<2
Arsenic, total	<4	<4	<4		<4	<4	<4	<4	<4
Barium, total	93	254	355	245	281	284	275	300	314
Benzene	<1	<1	<1		<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4		<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1		<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1		<1	<1	<1	<1	<1
Bromoform	<1	<1	<1		<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1		<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8		<.8	<.8	<.8	<.8	<.8
Calcium, total		158							
Carbon disulfide	<1	<1	<1		<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1		<1	<1	<1	<1	<1
Chloride		3.6							
Chlorobenzene	<1	<1	<1		<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1		<1	<1	<1	<1	<1
Chloroform	<1	<1	<1		<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1		<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8		<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	<1	<1	<1		<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1		<1	<1	<1	<1	<1
Cobalt, total	<.8	<.8	<.8		<.4	<.4	<.4	<.4	<.4
Copper, total	<4	<4	<4		<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1	<1		<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1		<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1		<1	<1	<1	<1	<1
Lead, total	<4	<4	<4		<4	<4	<4	<4	<4
Magnesium, total		53.9							
Methyl iodide	<1	<1	<1		<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5		<5	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	<4.0		<4.0	<4.0	<4.0	<4.0	<4.0
Potassium, total		<1							
Selenium, total	<4	<4	<4		<4	<4	<4	<4	<4
Silver, total	<4	<4	<4		<4	<4	<4	<4	<4
Sodium, total		12.7							
Solids, total dissolved		536							
Solids, total suspended									
Styrene	<1	<1	<1		<1	<1	<1	<1	<1
Sulfate		7.9							
Tetrachloroethylene	<1	<1	<1		<1	<1	<1	<1	<1
Thallium, total	<4	<2	<2		<2	<2	<2	<2	<2
Toluene	<1	<1	<1		<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	<1	<1	<1		<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1		<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5		<5	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1		<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1		<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20		<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5		<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1		<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2		<2	<2	<2	<2	<2
Zinc, total	<20.0	<8.0	<8.0		<20.0	<20.0	<20.0	<20.0	<20.0

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

Table 9

Analytical Data Summary for MW-11

Constituents	10/5/2022	4/14/2023	10/18/2023	4/8/2024	10/8/2024
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1
2-butanone (mek)	<10	<10	<10	<10	<10
2-hexanone (mbk)	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5	<5	<5
Alkalinity, as caco3					
Antimony, total	<2	<2	<2	<2	<2
Arsenic, total	<4	<4	<4	<4	<4
Barium, total	234	221	269	286	249
Benzene	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8
Calcium, total					
Carbon disulfide	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1
Chloride					
Chlorobenzene	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1
Cobalt, total	1.4	<.4	<.4	<.4	<.4
Copper, total	<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4
Magnesium, total					
Methyl iodide	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	<4.0	<4.0	<4.0
Potassium, total					
Selenium, total	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4
Sodium, total					
Solids, total dissolved					
Solids, total suspended					
Styrene	<1	<1	<1	<1	<1
Sulfate					
Tetrachloroethylene	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0	<20.0

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

Table 9

Analytical Data Summary for MW-12

Constituents	Units	3/30/2014	9/19/2014	4/20/2015	7/9/2015	10/5/2015	4/5/2016	10/5/2016	4/4/2017	10/3/2017
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<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-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	19.6
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity, as caco3	mg/L									
Antimony, total	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	ug/L	310	305	264	269	293	306	274	279	268
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total	mg/L									
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloride	mg/L									
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	1.5	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Copper, total	ug/L	7.6	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Magnesium, total	mg/L									
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	10.6	5.4	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Potassium, total	mg/L									
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total	mg/L									
Solids, total dissolved	mg/L									
Solids, total suspended	mg/L		5	3						
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate	mg/L									
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<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
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	<20.0	<8.0	<8.0	18.1	10.1	<8.0	<8.0	<8.0	<8.0

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

Table 9

Analytical Data Summary for MW-12

Constituents	4/10/2018	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021	10/5/2021	4/4/2022
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1	<1	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	<5	<5	<5	<5	<5	<5	<5	<5	<10
2-hexanone (mbk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity, as caco3			486						
Antimony, total	<2.0	<2.0	3.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	273	243	261	253	276	256	252	216	254
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total			120						
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloride			6.4						
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	<.8	<.8	<.8	<.8	<.4	<.4	<.4	<.4	<.4
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Magnesium, total			30.2						
Methyl iodide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	13.4	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	10.4
Potassium, total			1.4						
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<8	<4	<4	<4	<4	<4	<4	<4
Sodium, total			15.1						
Solids, total dissolved			404						
Solids, total suspended									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate			20						
Tetrachloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<2	<2	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	27.2	<20.0	<8.0	10.9	<20.0	<20.0	<20.0	<20.0	24.2

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

Table 9

Analytical Data Summary for MW-12

Constituents	10/5/2022	4/14/2023	10/18/2023	4/8/2024	10/8/2024
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1
2-butanone (mek)	<10	<10	<10	<10	<10
2-hexanone (mbk)	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5	<5	<5
Alkalinity, as caco3					
Antimony, total	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic, total	<4	<4	<4	<4	<4
Barium, total	219	232	255	247	253
Benzene	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8
Calcium, total					
Carbon disulfide	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1
Chloride					
Chlorobenzene	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1
Cobalt, total	2.6	<.4	<.4	<.4	<.4
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4
Magnesium, total					
Methyl iodide	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5	<5
Nickel, total	6.2	<4.0	<4.0	<4.0	<4.0
Potassium, total					
Selenium, total	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4
Sodium, total					
Solids, total dissolved					
Solids, total suspended					
Styrene	<1	<1	<1	<1	<1
Sulfate					
Tetrachloroethylene	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	21.8	<20.0	<20.0

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

Table 9

Analytical Data Summary for MW-15

Constituents	Units	3/30/2014	9/19/2014	4/20/2015	10/5/2015	4/5/2016	10/5/2016	4/4/2017	10/3/2017	4/10/2018
(3 4)-methylphenol	ug/L	<8								
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<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-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	ug/L	<1								
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L	<8								
1,2,4-trichlorobenzene	ug/L	<1								
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L	<8								
1,3,5-trinitrobenzene	ug/L	<8								
1,3-dichlorobenzene	ug/L	<1								
1,3-dichloropropane	ug/L	<1								
1,3-dinitrobenzene	ug/L	<8								
1,4-dichlorobenzene	ug/L	3.1	2.9	2.4	2.7	2.2	2.5	2.0	2.8	2.6
1,4-naphthoquinone	ug/L	<8								
1,4-phenylenediamine	ug/L	<8								
1-naphthylamine	ug/L	<8								
2,2-dichloropropane	ug/L	<1								
2,3,4,6-tetrachlorophenol	ug/L	<8								
2,4,5-t	ug/L	<.5								
2,4,5-tp (silvex)	ug/L	<.5								
2,4,5-trichlorophenol	ug/L	<8								
2,4,6-trichlorophenol	ug/L	<8								
2,4-d	ug/L	<2								
2,4-dichlorophenol	ug/L	<8								
2,4-dimethylphenol	ug/L	<8								
2,4-dinitrophenol	ug/L	<8								
2,4-dinitrotoluene	ug/L	<8								
2,6-dichlorophenol	ug/L	<8								
2,6-dinitrotoluene	ug/L	<8								
2-acetylaminofluorene	ug/L	<8								
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene	ug/L	<8								
2-chlorophenol	ug/L	<8								
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene	ug/L	<8								
2-methylphenol	ug/L	<8								
2-naphthylamine	ug/L	<8								
2-nitroaniline	ug/L	<8								
2-nitrophenol	ug/L	<8								
3,3´-dichlorobenzidine	ug/L	<8								
3,3'-dimethylbenzidine	ug/L	<8								
3-methylcholanthrene	ug/L	<8								
3-nitroaniline	ug/L	<8								
4,4´-ddd	ug/L	<.05								
4,4´-dde	ug/L	<.05								
4,4´-ddt	ug/L	<.05								
4,6-dinitro-2-methylphenol	ug/L	<8								
4-aminobiphenyl	ug/L	<8								
4-bromophenyl phenyl ether	ug/L	<8								
4-chloro-3-methylphenol	ug/L	<8								
4-chloroaniline	ug/L	<8								
4-chlorophenyl phenyl ether	ug/L	<8								
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline	ug/L	<8								
4-nitrophenol	ug/L	<8								
5-nitro-o-toluidine	ug/L	<8								
7,12-dimethylbenz(a)anthracene	ug/L	<8								
Acenaphthene	ug/L	<8								
Acenaphthylene	ug/L	<8								
Acetone	ug/L	<10.0	13.1	51.3	<10.0	<10.0	26.3	<10.0	<10.0	<10.0
Acetonitrile	ug/L	<10								
Acetophenone	ug/L	<8								
Acrolein	ug/L	<10								
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L	<.05								
Alkalinity, as caco3	mg/L									
Allyl chloride	ug/L	<1								
Alpha-bhc	ug/L	<.05								

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

Table 9

Analytical Data Summary for MW-15

Constituents	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021	10/5/2021	4/4/2022	10/5/2022
(3 4)-methylphenol		<8							
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene		<1							
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene		<8							
1,2,4-trichlorobenzene		<1							
1,2-dibromo-3-chloropropane	<1	<1	<1	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene		<8							
1,3,5-trinitrobenzene		<8							
1,3-dichlorobenzene		<1							
1,3-dichloropropane		<1							
1,3-dinitrobenzene		<8							
1,4-dichlorobenzene	<1.0	<1.0	<1.0	2.0	1.9	1.8	2.1	1.8	2.2
1,4-naphthoquinone		<8							
1,4-phenylenediamine		<8							
1-naphthylamine		<8							
2,2-dichloropropane		<1							
2,3,4,6-tetrachlorophenol		<8							
2,4,5-t		<.5							
2,4,5-tp (silvex)		<.5							
2,4,5-trichlorophenol		<8							
2,4,6-trichlorophenol		<8							
2,4-d		<2							
2,4-dichlorophenol		<8							
2,4-dimethylphenol		<8							
2,4-dinitrophenol		<8							
2,4-dinitrotoluene		<8							
2,6-dichlorophenol		<8							
2,6-dinitrotoluene		<8							
2-acetylaminofluorene		<8							
2-butanone (mek)	<5	<5	<5	<5	<5	<5	<5	<10	<10
2-chloronaphthalene		<8							
2-chlorophenol		<8							
2-hexanone (mbk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene		<8							
2-methylphenol		<8							
2-naphthylamine		<8							
2-nitroaniline		<8							
2-nitrophenol		<8							
3,3´-dichlorobenzidine		<8							
3,3'-dimethylbenzidine		<8							
3-methylcholanthrene		<8							
3-nitroaniline		<8							
4,4´-ddd		<.05							
4,4´-dde		<.05							
4,4´-ddt		<.05							
4,6-dinitro-2-methylphenol		<8							
4-aminobiphenyl		<8							
4-bromophenyl phenyl ether		<8							
4-chloro-3-methylphenol		<8							
4-chloroaniline		<8							
4-chlorophenyl phenyl ether		<8							
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline		<8							
4-nitrophenol		<8							
5-nitro-o-toluidine		<8							
7,12-dimethylbenz(a)anthracene		<8							
Acenaphthene		<8							
Acenaphthylene		<8							
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile		<10							
Acetophenone		<8							
Acrolein		<10							
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin		<.05							
Alkalinity, as caco3		562			451	467	445	551	
Allyl chloride		<1							
Alpha-bhc		<.05							

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

Table 9

Analytical Data Summary for MW-15

Constituents	4/14/2023	10/18/2023	4/8/2024	10/8/2024
(3 4)-methylphenol				
1,1,1,2-tetrachloroethane	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	1	<1
1,1-dichloropropene				
1,2,3-trichloropropane	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene				
1,2,4-trichlorobenzene				
1,2-dibromo-3-chloropropane	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1
1,2-dinitrobenzene				
1,3,5-trinitrobenzene				
1,3-dichlorobenzene				
1,3-dichloropropane				
1,3-dinitrobenzene				
1,4-dichlorobenzene	1.9	1.7	2.1	1.6
1,4-naphthoquinone				
1,4-phenylenediamine				
1-naphthylamine				
2,2-dichloropropane				
2,3,4,6-tetrachlorophenol				
2,4,5-t				
2,4,5-tp (silvex)				
2,4,5-trichlorophenol				
2,4,6-trichlorophenol				
2,4-d				
2,4-dichlorophenol				
2,4-dimethylphenol				
2,4-dinitrophenol				
2,4-dinitrotoluene				
2,6-dichlorophenol				
2,6-dinitrotoluene				
2-acetylaminofluorene				
2-butanone (mek)	<10	<10	<10	<10
2-chloronaphthalene				
2-chlorophenol				
2-hexanone (mbk)	<5	<5	<5	<5
2-methylnaphthalene				
2-methylphenol				
2-naphthylamine				
2-nitroaniline				
2-nitrophenol				
3,3´-dichlorobenzidine				
3,3'-dimethylbenzidine				
3-methylcholanthrene				
3-nitroaniline				
4,4´-ddd				
4,4´-dde				
4,4´-ddt				
4,6-dinitro-2-methylphenol				
4-aminobiphenyl				
4-bromophenyl phenyl ether				
4-chloro-3-methylphenol				
4-chloroaniline				
4-chlorophenyl phenyl ether				
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5
4-nitroaniline				
4-nitrophenol				
5-nitro-o-toluidine				
7,12-dimethylbenz(a)anthracene				
Acenaphthene				
Acenaphthylene				
Acetone	<10.0	<10.0	<10.0	<10.0
Acetonitrile				
Acetophenone				
Acrolein				
Acrylonitrile	<5	<5	<5	<5
Aldrin				
Alkalinity, as caco3	422		397	394
Allyl chloride				
Alpha-bhc				

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

Table 9

Analytical Data Summary for MW-15

Constituents	Units	3/30/2014	9/19/2014	4/20/2015	10/5/2015	4/5/2016	10/5/2016	4/4/2017	10/3/2017	4/10/2018
Anthracene	ug/L	<8								
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016	ug/L	<.1								
Arochlor 1221	ug/L	<.2								
Arochlor 1232	ug/L	<.2								
Arochlor 1242	ug/L	<.2								
Arochlor 1248	ug/L	<.2								
Arochlor 1254	ug/L	<.1								
Arochlor 1260	ug/L	<.1								
Arsenic, total	ug/L	99.5	21.9	178.0	208.0	183.0	153.0	177.0	233.0	142.0
Azobenzene	ug/L	<8								
Barium, total	ug/L	1120	694	1160	1030	1080	1160	1130	1160	598
Benzene	ug/L	10.0	7.4	7.8	5.8	7.7	5.0	6.6	6.2	8.9
Benzo(a)anthracene	ug/L	<8								
Benzo(a)pyrene	ug/L	<8								
Benzo(b)fluoranthene	ug/L	<8								
Benzo(g,h,i)perylene	ug/L	<8								
Benzo(k)fluoranthene	ug/L	<8								
Benzyl alcohol	ug/L	<8								
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc	ug/L	<.05								
Bis (2-chloroethoxy) methane	ug/L	<8								
Bis(2-chloroethyl) ether	ug/L	<8								
Bis(2-chloroisopropyl) ether	ug/L	<8								
Bis(2-ethylhexyl) phthalate	ug/L	85	<10	<10	10	<10	<10	<10	<6	<6
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate	ug/L	<8								
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total	mg/L									
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlordane	ug/L	<.1								
Chloride	mg/L									
Chlorobenzene	ug/L	15.4	14.2	13.5	12.8	11.2	14.4	10.4	12.6	11.1
Chlorobenzilate	ug/L	<8								
Chloroethane	ug/L	15.4	16.3	14.1	10.2	12.9	10.6	12.0	8.4	12.3
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene	ug/L	<1								
Chromium, total	ug/L	10	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene	ug/L	<8								
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	30.0	19.4	22.3	24.3	21.3	20.1	19.8	22.5	12.3
Copper, total	ug/L	16.3	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide, total	mg/L	<.005								
Delta-bhc	ug/L	<.05								
Diallate	ug/L	<8								
Dibenzo(a,h)anthracene	ug/L	<8								
Dibenzofuran	ug/L	<8								
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0	<1.0
Dieldrin	ug/L	<.05								
Diethyl phthalate	ug/L	<8								
Dimethoate	ug/L	<.4								
Dimethylphthalate	ug/L	<8								
Di-n-butyl phthalate	ug/L	<8								
Di-n-octyl phthalate	ug/L	<8								
Dinoseb	ug/L	<.5								
Diphenylamine	ug/L	<8								
Disulfoton	ug/L	<.4								
Endosulfan i	ug/L	<.05								
Endosulfan ii	ug/L	<.05								
Endosulfan sulfate	ug/L	<.05								
Endrin	ug/L	<.05								
Endrin aldehyde	ug/L	<.05								
Ethane	ug/L									
Ethene	ug/L									
Ethyl methacrylate	ug/L	<10								
Ethyl methanesulfonate	ug/L	<8								
Ethylbenzene	ug/L	39.0	15.3	6.5	<1.0	10.5	<1.0	4.9	<1.0	5.1
Famphur	ug/L	<.4								
Fluoranthene	ug/L	<8								

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

Table 9

Analytical Data Summary for MW-15

Constituents	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021	10/5/2021	4/4/2022	10/5/2022
Anthracene		<8							
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016		<.1							
Arochlor 1221		<.2							
Arochlor 1232		<.2							
Arochlor 1242		<.2							
Arochlor 1248		<.2							
Arochlor 1254		<.1							
Arochlor 1260		<.1							
Arsenic, total	128.0	125.0	212.0	149.0	168.0	177.0	200.0	143.0	250.0
Azobenzene		<8							
Barium, total	1050	1390	1170	1300	881	868	1180	1000	1170
Benzene	5.6	6.9	3.6	5.1	3.5	6.1	3.0	4.8	4.1
Benzo(a)anthracene		<8							
Benzo(a)pyrene		<8							
Benzo(b)fluoranthene		<8							
Benzo(g,h,i)perylene		<8							
Benzo(k)fluoranthene		<8							
Benzyl alcohol		<8							
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc		<.05							
Bis (2-chloroethoxy) methane		<8							
Bis(2-chloroethyl) ether		<8							
Bis(2-chloroisopropyl) ether		<8							
Bis(2-ethylhexyl) phthalate	<6	10	<8	<6					
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate		<8							
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total		241							
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlordane		<.1							
Chloride		485							
Chlorobenzene	8.7	9.6	9.4	9.0	8.3	7.4	8.1	7.8	6.9
Chlorobenzilate		<8							
Chloroethane	8.6	8.5	8.8	9.0	9.4	9.8	6.3	8.3	7.5
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene		<1							
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene		<8							
Cis-1,2-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	22.0	23.7	24.2	19.6	15.0	15.1	20.0	18.4	21.2
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide, total		<.005							
Delta-bhc		<.05							
Diallate		<8							
Dibenzo(a,h)anthracene		<8							
Dibenzofuran		<8							
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0					
Dieldrin		<.05							
Diethyl phthalate		<8							
Dimethoate		<.4							
Dimethylphthalate		<8							
Di-n-butyl phthalate		<8							
Di-n-octyl phthalate		<8							
Dinoseb		<.5							
Diphenylamine		<8							
Disulfoton		<.4							
Endosulfan i		<.05							
Endosulfan ii		<.05							
Endosulfan sulfate		<.05							
Endrin		<.05							
Endrin aldehyde		<.05							
Ethane			<5		<10				
Ethene			<5		<10				
Ethyl methacrylate		<10							
Ethyl methanesulfonate		<8							
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Famphur		<.4							
Fluoranthene		<8							

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

Table 9

Analytical Data Summary for MW-15

Constituents	4/14/2023	10/18/2023	4/8/2024	10/8/2024
Anthracene				
Antimony, total	<2	<2	<2	<2
Arochlor 1016				
Arochlor 1221				
Arochlor 1232				
Arochlor 1242				
Arochlor 1248				
Arochlor 1254				
Arochlor 1260				
Arsenic, total	168.0	166.0	151.0	209.0
Azobenzene				
Barium, total	783	1350	800	1200
Benzene	4.2	1.4	4.0	2.8
Benzo(a)anthracene				
Benzo(a)pyrene				
Benzo(b)fluoranthene				
Benzo(g,h,i)perylene				
Benzo(k)fluoranthene				
Benzyl alcohol				
Beryllium, total	<4	<4	<4	<4
Beta-bhc				
Bis (2-chloroethoxy) methane				
Bis(2-chloroethyl) ether				
Bis(2-chloroisopropyl) ether				
Bis(2-ethylhexyl) phthalate				
Bromochloromethane	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1
Butyl benzyl phthalate				
Cadmium, total	<.8	<.8	<.8	<.8
Calcium, total				
Carbon disulfide	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1
Chlordane				
Chloride				
Chlorobenzene	6.5	4.2	6.1	4.7
Chlorobenzilate				
Chloroethane	4.6	3.8	4.4	4.2
Chloroform	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1
Chloroprene				
Chromium, total	<8	<8	<8	<8
Chrysene				
Cis-1,2-dichloroethylene	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1
Cobalt, total	13.1	15.9	14.1	15.5
Copper, total	<4.0	<4.0	<4.0	<4.0
Cyanide, total				
Delta-bhc				
Diallate				
Dibenzo(a,h)anthracene				
Dibenzofuran				
Dibromochloromethane	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1
Dichlorodifluoromethane				
Dieldrin				
Diethyl phthalate				
Dimethoate				
Dimethylphthalate				
Di-n-butyl phthalate				
Di-n-octyl phthalate				
Dinoseb				
Diphenylamine				
Disulfoton				
Endosulfan i				
Endosulfan ii				
Endosulfan sulfate				
Endrin				
Endrin aldehyde				
Ethane				<5
Ethene				<5
Ethyl methacrylate				
Ethyl methanesulfonate				
Ethylbenzene	<1.0	<1.0	<1.0	<1.0
Famphur				
Fluoranthene				

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

Table 9

Analytical Data Summary for MW-15

Constituents	Units	3/30/2014	9/19/2014	4/20/2015	10/5/2015	4/5/2016	10/5/2016	4/4/2017	10/3/2017	4/10/2018
Fluorene	ug/L	<8								
Gamma-bhc (lindane)	ug/L	<.05								
Heptachlor	ug/L	<.05								
Heptachlor epoxide	ug/L	<.05								
Hexachlorobenzene	ug/L	<4.03 *								
Hexachlorobutadiene	ug/L	<8								
Hexachlorocyclopentadiene	ug/L	<8								
Hexachloroethane	ug/L	<8								
Hexachloropropene	ug/L	<8								
Indeno(1,2,3-cd)pyrene	ug/L	<8								
Isobutanol	mg/L	<1								
Isodrin	ug/L	<8								
Isophorone	ug/L	<8								
Isosafrole	ug/L	<8								
Kepone	ug/L	<8								
Lead, total	ug/L	8.3	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Magnesium, total	mg/L									
Mercury, total	ug/L	<.5								
Methacrylonitrile	ug/L	<1								
Methane	ug/L									
Methapyrilene	ug/L	<8								
Methoxychlor	ug/L	<.05								
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate	ug/L	<1								
Methyl methanesulfonate	ug/L	<8								
Methyl parathion	ug/L	<.4								
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	ug/L	<8								
Nickel, total	ug/L	97.0	67.0	73.3	102.0	70.3	59.8	71.0	101.0	57.8
Nitrobenzene	ug/L	<8								
N-nitrosodiethylamine	ug/L	<8								
N-nitrosodimethylamine	ug/L	<8								
N-nitrosodi-n-butylamine	ug/L	<8								
N-nitroso-di-n-propylamine	ug/L	<8								
N-nitrosodiphenylamine	ug/L	<8								
N-nitrosomethylethylamine	ug/L	<8								
N-nitrosopiperidine	ug/L	<8								
N-nitrosopyrrolidine	ug/L	<8								
O,o,o-triethyl phosphorothioate	ug/L	<.4								
O-toluidine	ug/L	<8								
Parathion	ug/L	<.4								
P-dimethylaminoazobenzene	ug/L	<8								
Pentachlorobenzene	ug/L	<8								
Pentachloronitrobenzene (pcnb)	ug/L	<8								
Pentachlorophenol	ug/L	<8								
pH	pH									
Phenacetin	ug/L	<8								
Phenanthrene	ug/L	<8								
Phenol	ug/L	<8								
Phorate	ug/L	<.4								
Potassium, total	mg/L									
Pronamide	ug/L	<8								
Propionitrile	ug/L	<10								
Pyrene	ug/L	<8								
Safrole	ug/L	<8								
Selenium, total	ug/L	<4.0	<4.0	<4.0	<4.0	<4.0	5.2	<4.0	<4.0	<4.0
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total	mg/L									
Solids, total dissolved	mg/L									
Solids, total suspended	mg/L		823	128						
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate	mg/L									
Sulfide, total	mg/L	<.1								
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Thionazin	ug/L	<.4								
Tin, total	ug/L	<20								
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene	ug/L	<.2								
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<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
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1

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

Table 9

Analytical Data Summary for MW-15

Constituents	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021	10/5/2021	4/4/2022	10/5/2022
Fluorene		<8							
Gamma-bhc (lindane)		<.05							
Heptachlor		<.05							
Heptachlor epoxide		<.05							
Hexachlorobenzene		<.05							
Hexachlorobutadiene		<8							
Hexachlorocyclopentadiene		<8							
Hexachloroethane		<8							
Hexachloropropene		<8							
Indeno(1,2,3-cd)pyrene		<8							
Isobutanol		<1							
Isodrin		<8							
Isophorone		<8							
Isosafrole		<8							
Kepone		<8							
Lead, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Magnesium, total		107							
Mercury, total		<.5							
Methacrylonitrile		<1							
Methane			5640		7150				
Methapyrilene		<8							
Methoxychlor		<.05							
Methyl iodide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate		<1							
Methyl methanesulfonate		<8							
Methyl parathion		<.4							
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<8							
Nickel, total	52.9	70.3	92.8	60.1	65.1	61.8	86.1	63.4	93.6
Nitrobenzene		<8							
N-nitrosodiethylamine		<8							
N-nitrosodimethylamine		<8							
N-nitrosodi-n-butylamine		<8							
N-nitroso-di-n-propylamine		<8							
N-nitrosodiphenylamine		<8							
N-nitrosomethylethylamine		<8							
N-nitrosopiperidine		<8							
N-nitrosopyrrolidine		<8							
O,o,o-triethyl phosphorothioate		<.4							
O-toluidine		<8							
Parathion		<.4							
P-dimethylaminoazobenzene		<8							
Pentachlorobenzene		<8							
Pentachloronitrobenzene (pcnb)		<8							
Pentachlorophenol		<8							
pH					6.6	6.5	6.5	6.6	
Phenacetin		<8							
Phenanthrene		<8							
Phenol		<8							
Phorate		<.4							
Potassium, total		8							
Pronamide		<8							
Propionitrile		<10							
Pyrene		<8							
Safrole		<8							
Selenium, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total		92.2							
Solids, total dissolved		1370							
Solids, total suspended									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate		1.3							
Sulfide, total		<.1							
Tetrachloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<2	<2	<2	<2	<2	<2	<2	<2
Thionazin		<.4							
Tin, total		<20							
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene		<.2							
Trans-1,2-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1

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

Table 9

Analytical Data Summary for MW-15

Constituents	4/14/2023	10/18/2023	4/8/2024	10/8/2024
Fluorene				
Gamma-bhc (lindane)				
Heptachlor				
Heptachlor epoxide				
Hexachlorobenzene				
Hexachlorobutadiene				
Hexachlorocyclopentadiene				
Hexachloroethane				
Hexachloropropene				
Indeno(1,2,3-cd)pyrene				
Isobutanol				
Isodrin				
Isophorone				
Isosafrole				
Kepone				
Lead, total	<4.0	<4.0	<4.0	<4.0
Magnesium, total				
Mercury, total				
Methacrylonitrile				
Methane				3150
Methapyrilene				
Methoxychlor				
Methyl iodide	<1	<1	<1	<1
Methyl methacrylate				
Methyl methanesulfonate				
Methyl parathion				
Methylene chloride	<5	<5	<5	<5
Naphthalene				
Nickel, total	67.5	72.1	58.3	85.1
Nitrobenzene				
N-nitrosodiethylamine				
N-nitrosodimethylamine				
N-nitrosodi-n-butylamine				
N-nitroso-di-n-propylamine				
N-nitrosodiphenylamine				
N-nitrosomethylethylamine				
N-nitrosopiperidine				
N-nitrosopyrrolidine				
O,o,o-triethyl phosphorothioate				
O-toluidine				
Parathion				
P-dimethylaminoazobenzene				
Pentachlorobenzene				
Pentachloronitrobenzene (pcnb)				
Pentachlorophenol				
pH	6.4		6.6	6.8
Phenacetin				
Phenanthrene				
Phenol				
Phorate				
Potassium, total				
Pronamide				
Propionitrile				
Pyrene				
Safrole				
Selenium, total	<4.0	<4.0	<4.0	<4.0
Silver, total	<4	<4	<4	<4
Sodium, total				
Solids, total dissolved				
Solids, total suspended				
Styrene	<1	<1	<1	<1
Sulfate				
Sulfide, total				
Tetrachloroethylene	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2
Thionazin				
Tin, total				
Toluene	<1	<1	<1	<1
Toxaphene				
Trans-1,2-dichloroethylene	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1

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

Table 9

Analytical Data Summary for MW-15

Constituents	Units	3/30/2014	9/19/2014	4/20/2015	10/5/2015	4/5/2016	10/5/2016	4/4/2017	10/3/2017	4/10/2018
Xylenes, total	ug/L	132.0	89.8	58.0	11.8	59.2	19.2	26.1	6.3	56.2
Zinc, total	ug/L	86.9	<8.0	16.6	<8.0	<8.0	14.5	<8.0	8.6	<20.0

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

Table 9

Analytical Data Summary for MW-15

Constituents	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021	10/5/2021	4/4/2022	10/5/2022
Xylenes, total	3.5	4.3	3.1	4.0	10.3	2.3	<2.0	<2.0	<2.0
Zinc, total	<20.0	8.0	10.2	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0

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

Table 9

Analytical Data Summary for MW-15

Constituents	4/14/2023	10/18/2023	4/8/2024	10/8/2024
Xylenes, total	<2.0	<2.0	<2.0	<2.0
Zinc, total	<20.0	<20.0	<20.0	<20.0

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

Table 9

Analytical Data Summary for MW-16

Constituents	Units	3/30/2014	9/19/2014	4/20/2015	10/5/2015	4/5/2016	10/5/2016	4/4/2017	10/3/2017	4/10/2018
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<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-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	27.9	<10.0
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity, as caco3	mg/L									
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	ug/L	168.0	111.0	103.0	98.0	96.9	86.5	95.8	87.4	87.7
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total	mg/L									
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloride	mg/L									
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	1.2	1.5	<.8	<.8	<.8	<.8	<.8	<.8
Copper, total	ug/L	7.3	4.8	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Magnesium, total	mg/L									
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	7.7	4.2	4.2	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Potassium, total	mg/L									
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total	mg/L									
Solids, total dissolved	mg/L									
Solids, total suspended	mg/L		48	12						
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate	mg/L									
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<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
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	31.9	11.0	12.2	9.5	12.1	<8.0	<8.0	<8.0	<20.0

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

Table 9

Analytical Data Summary for MW-16

Constituents	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021	10/5/2021	4/4/2022	10/5/2022
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	<5	<5	<5	<5	<5	<5	<5	<10	<10
2-hexanone (mbk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity, as caco3		449							
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	82.6	91.8	109.0	90.8	92.3	89.0	78.7	83.4	95.8
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total		134							
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloride		1.9							
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	<.8	<.8	<.8	.4	<.4	<.4	<.4	.6	2.2
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Magnesium, total		40.8							
Methyl iodide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	11.1	<4.0	<4.0	<4.0	<4.0	5.8	<4.0
Potassium, total		3.9							
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total		27							
Solids, total dissolved		493							
Solids, total suspended									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate		54.7							
Tetrachloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<2	<2	<2	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<20.0	<8.0	<8.0	<20.0	<20.0	<20.0	<20.0	<20.0	30.7

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

Table 9

Analytical Data Summary for MW-16

Constituents	1/3/2023	4/14/2023	10/18/2023	4/8/2024	6/13/2024	10/8/2024
1,1,1,2-tetrachloroethane		<1	<1	<1		<1
1,1,1-trichloroethane		<1	<1	<1		<1
1,1,2,2-tetrachloroethane		<1	<1	<1		<1
1,1,2-trichloroethane		<1	<1	<1		<1
1,1-dichloroethane		<1	<1	<1		<1
1,1-dichloroethylene		<1	<1	<1		<1
1,2,3-trichloropropane		<1	<1	<1		<1
1,2-dibromo-3-chloropropane		<5	<5	<5		<5
1,2-dibromoethane		<1	<1	<1		<1
1,2-dichlorobenzene		<1	<1	<1		<1
1,2-dichloroethane		<1	<1	<1		<1
1,2-dichloropropane		<1	<1	<1		<1
1,4-dichlorobenzene		<1	<1	<1		<1
2-butanone (mek)		<10	<10	<10		<10
2-hexanone (mbk)		<5	<5	<5		<5
4-methyl-2-pentanone (mibk)		<5	<5	<5		<5
Acetone		<10.0	<10.0	<10.0		<10.0
Acrylonitrile		<5	<5	<5		<5
Alkalinity, as caco3						
Antimony, total		<2	<2	<2		<2
Arsenic, total		<4	<4	<4		<4
Barium, total		85.3	84.0	84.3		82.7
Benzene		<1	<1	<1		<1
Beryllium, total		<4	<4	<4		<4
Bromochloromethane		<1	<1	<1		<1
Bromodichloromethane		<1	<1	<1		<1
Bromoform		<1	<1	<1		<1
Bromomethane		<1	<1	<1		<1
Cadmium, total		<.8	<.8	<.8		<.8
Calcium, total						
Carbon disulfide		<1	<1	<1		<1
Carbon tetrachloride		<1	<1	<1		<1
Chloride						
Chlorobenzene		<1	<1	<1		<1
Chloroethane		<1	<1	<1		<1
Chloroform		<1	<1	<1		<1
Chloromethane		<1	<1	<1		<1
Chromium, total		<8	<8	<8		<8
Cis-1,2-dichloroethylene		<1	<1	<1		<1
Cis-1,3-dichloropropene		<1	<1	<1		<1
Cobalt, total		<.4	.4	<.4		.6
Copper, total		<4.0	<4.0	<4.0		<4.0
Dibromochloromethane		<1	<1	<1		<1
Dibromomethane		<1	<1	<1		<1
Ethylbenzene		<1	<1	<1		<1
Lead, total		<4	<4	<4		<4
Magnesium, total						
Methyl iodide		<1	<1	<1		<1
Methylene chloride		<5	<5	<5		<5
Nickel, total		<4.0	<4.0	<4.0		6.7
Potassium, total						
Selenium, total		<4	<4	<4		<4
Silver, total		<4	<4	<4		<4
Sodium, total						
Solids, total dissolved						
Solids, total suspended						
Styrene		<1	<1	<1		<1
Sulfate						
Tetrachloroethylene		<1	<1	<1		<1
Thallium, total		<2	<2	<2		<2
Toluene		<1	<1	<1		<1
Trans-1,2-dichloroethylene		<1	<1	<1		<1
Trans-1,3-dichloropropene		<1	<1	<1		<1
Trans-1,4-dichloro-2-butene		<5	<5	<5		<5
Trichloroethylene		<1	<1	<1		<1
Trichlorofluoromethane		<1	<1	<1		<1
Vanadium, total		<20	<20	<20		<20
Vinyl acetate		<5	<5	<5		<5
Vinyl chloride		<1	<1	<1		<1
Xylenes, total		<2	<2	<2		<2
Zinc, total	<20.0	<20.0	<20.0	32.4	20.0	25.6

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

Table 9

Analytical Data Summary for MW-20

Constituents	Units	3/30/2014	9/19/2014	4/20/2015	10/5/2015	4/5/2016	10/5/2016	4/4/2017	10/3/2017	4/10/2018
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<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-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	22.4	<10.0
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity, as caco3	mg/L									
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	ug/L	124.0	153.0	146.0	154.0	135.0	99.4	110.0	114.0	111.0
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total	mg/L									
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloride	mg/L									
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Copper, total	ug/L	<4.0	<4.0	4.6	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Magnesium, total	mg/L									
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	<4.0	<4.0	8.7	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Potassium, total	mg/L									
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total	mg/L									
Solids, total dissolved	mg/L									
Solids, total suspended	mg/L		83	6						
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate	mg/L									
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<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
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	<20.0	<8.0	15.3	9.2	<8.0	<8.0	<8.0	<8.0	<20.0

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

Table 9

Analytical Data Summary for MW-20

Constituents	10/12/2018	4/16/2019	9/30/2019	4/8/2020	10/7/2020	4/22/2021	10/5/2021	4/4/2022	10/5/2022
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	<5	<5	<5	<5	<5	<5	<5	<10	<10
2-hexanone (mbk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity, as caco3		437							
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	91.9	128.0	105.0	144.0	85.2	112.0	118.0	100.0	114.0
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total		133							
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloride		18.2							
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	<.8	<.8	<.8	<.4	<.4	<.4	<.4	<.4	1.5
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Magnesium, total		37							
Methyl iodide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Potassium, total		1.3							
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total		11							
Solids, total dissolved		527							
Solids, total suspended									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate		77.8							
Tetrachloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<2	<2	<2	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<20.0	<8.0	<8.0	<20.0	<20.0	23.4	<20.0	<20.0	<20.0

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

Table 9

Analytical Data Summary for MW-20

Constituents	4/14/2023	10/18/2023	4/8/2024	10/8/2024
1,1,1,2-tetrachloroethane	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1
2-butanone (mek)	<10	<10	<10	<10
2-hexanone (mbk)	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5
Acetone	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5	<5
Alkalinity, as caco3				
Antimony, total	<2	<2	<2	<2
Arsenic, total	<4	<4	<4	<4
Barium, total	103.0	133.0	144.0	120.0
Benzene	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8
Calcium, total				
Carbon disulfide	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1
Chloride				
Chlorobenzene	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8
Cis-1,2-dichloroethylene	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1
Cobalt, total	<.4	<.4	<.4	<.4
Copper, total	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4
Magnesium, total				
Methyl iodide	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	<4.0	<4.0
Potassium, total				
Selenium, total	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4
Sodium, total				
Solids, total dissolved				
Solids, total suspended				
Styrene	<1	<1	<1	<1
Sulfate				
Tetrachloroethylene	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2
Toluene	<1	<1	<1	<1
Trans-1,2-dichloroethylene	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0

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

Table 9

Analytical Data Summary for MW-22

Constituents	Units	3/30/2014	9/19/2014	4/20/2015	10/5/2015	4/5/2016	4/4/2017	10/3/2017	1/3/2018	4/10/2018
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1		
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1		
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1		
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1		
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1		
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1		
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5		
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5		
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5		
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	28.8		
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5		
Alkalinity, as caco3	mg/L									
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2		
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4		<4
Barium, total	ug/L	225.0	200.0	214.0	213.0	208.0	204.0	192.0		
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1		<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4		
Bis(2-ethylhexyl) phthalate	ug/L					<10	<10	<6		
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1		
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8		
Calcium, total	mg/L									
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1		
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1		
Chloride	mg/L									
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1		
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1		
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
Chromium, total	ug/L	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0		
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1		
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1		
Cobalt, total	ug/L	<4.0	<.8	<.8	<.8	<.8	<.8	<.8		<.8
Copper, total	ug/L	<4	<4	<4	<4	<4	<4	<4		
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
Dichlorodifluoromethane	ug/L					<1	<1	<1		
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1		
Lead, total	ug/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0		
Magnesium, total	mg/L									
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1		
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5		
Nickel, total	ug/L	6.3	4.3	8.2	<4.0	<4.0	<4.0	<4.0		
Potassium, total	mg/L									
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4		
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4		
Sodium, total	mg/L									
Solids, total dissolved	mg/L									
Solids, total suspended	mg/L		809	30						
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1		
Sulfate	mg/L									
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1		
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4	<4		
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1		
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1		
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1		
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5		
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1		
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1		
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20		
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5		
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1		
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2		
Zinc, total	ug/L	<20.0	<8.0	<8.0	<8.0	<8.0	<8.0	29.6	<8.0	

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

Table 9

Analytical Data Summary for MW-22

Constituents	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021	10/5/2021	4/4/2022	10/5/2022
1,1,1,2-tetrachloroethane					<1	<1	<1	<1	<1
1,1,1-trichloroethane					<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane					<1	<1	<1	<1	<1
1,1,2-trichloroethane					<1	<1	<1	<1	<1
1,1-dichloroethane					<1	<1	<1	<1	<1
1,1-dichloroethylene					<1	<1	<1	<1	<1
1,2,3-trichloropropane					<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane					<5	<5	<5	<5	<5
1,2-dibromoethane					<1	<1	<1	<1	<1
1,2-dichlorobenzene					<1	<1	<1	<1	<1
1,2-dichloroethane					<1	<1	<1	<1	<1
1,2-dichloropropane					<1	<1	<1	<1	<1
1,4-dichlorobenzene					<1	<1	<1	<1	<1
2-butanone (mek)					<5	<5	<5	<10	<10
2-hexanone (mbk)					<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)					<5	<5	<5	<5	<5
Acetone					<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile					<5	<5	<5	<5	<5
Alkalinity, as caco3		390							
Antimony, total					<2	<2	<2	<2	<2
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total					164.0	164.0	169.0	81.4	191.0
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total					<4	<4	<4	<4	<4
Bis(2-ethylhexyl) phthalate									
Bromochloromethane					<1	<1	<1	<1	<1
Bromodichloromethane					<1	<1	<1	<1	<1
Bromoform					<1	<1	<1	<1	<1
Bromomethane					<1	<1	<1	<1	<1
Cadmium, total					<.8	<.8	<.8	<.8	<.8
Calcium, total		113							
Carbon disulfide					<1	<1	<1	<1	<1
Carbon tetrachloride					<1	<1	<1	<1	<1
Chloride		13.2							
Chlorobenzene					<1	<1	<1	<1	<1
Chloroethane					<1	<1	<1	<1	<1
Chloroform					<1	<1	<1	<1	<1
Chloromethane					<1	<1	<1	<1	<1
Chromium, total					<8.0	<8.0	<8.0	<8.0	13.4
Cis-1,2-dichloroethylene					<1	<1	<1	<1	<1
Cis-1,3-dichloropropene					<1	<1	<1	<1	<1
Cobalt, total	<.8	<.8	<.8	<.4	<.4	<.4	<.4	<.4	2.5
Copper, total					<4	<4	<4	<4	<4
Dibromochloromethane					<1	<1	<1	<1	<1
Dibromomethane					<1	<1	<1	<1	<1
Dichlorodifluoromethane									
Ethylbenzene					<1	<1	<1	<1	<1
Lead, total					<4.0	<4.0	<4.0	<4.0	<4.0
Magnesium, total		42.1							
Methyl iodide					<1	<1	<1	<1	<1
Methylene chloride					<5	<5	<5	<5	<5
Nickel, total					<4.0	<4.0	<4.0	<4.0	6.8
Potassium, total		<1							
Selenium, total					<4	<4	<4	<4	<4
Silver, total					<4	<4	<4	<4	<4
Sodium, total		11.1							
Solids, total dissolved		441							
Solids, total suspended									
Styrene					<1	<1	<1	<1	<1
Sulfate		27.8							
Tetrachloroethylene					<1	<1	<1	<1	<1
Thallium, total					<2	<2	<2	<2	<2
Toluene					<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene					<1	<1	<1	<1	<1
Trans-1,3-dichloropropene					<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene					<5	<5	<5	<5	<5
Trichloroethylene					<1	<1	<1	<1	<1
Trichlorofluoromethane					<1	<1	<1	<1	<1
Vanadium, total					<20	<20	<20	<20	<20
Vinyl acetate					<5	<5	<5	<5	<5
Vinyl chloride					<1	<1	<1	<1	<1
Xylenes, total					<2	<2	<2	<2	<2
Zinc, total					<20.0	<20.0	<20.0	<20.0	<20.0

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

Table 9

Analytical Data Summary for MW-22

Constituents	1/3/2023	4/14/2023	7/10/2023	10/18/2023	4/8/2024	10/8/2024
1,1,1,2-tetrachloroethane		<1		<1	<1	<1
1,1,1-trichloroethane		<1		<1	<1	<1
1,1,2,2-tetrachloroethane		<1		<1	<1	<1
1,1,2-trichloroethane		<1		<1	<1	<1
1,1-dichloroethane		<1		<1	<1	<1
1,1-dichloroethylene		<1		<1	<1	<1
1,2,3-trichloropropane		<1		<1	<1	<1
1,2-dibromo-3-chloropropane		<5		<5	<5	<5
1,2-dibromoethane		<1		<1	<1	<1
1,2-dichlorobenzene		<1		<1	<1	<1
1,2-dichloroethane		<1		<1	<1	<1
1,2-dichloropropane		<1		<1	<1	<1
1,4-dichlorobenzene		<1		<1	<1	<1
2-butanone (mek)		<10		<10	<10	<10
2-hexanone (mbk)		<5		<5	<5	<5
4-methyl-2-pentanone (mibk)		<5		<5	<5	<5
Acetone		<10.0		<10.0	<10.0	<10.0
Acrylonitrile		<5		<5	<5	<5
Alkalinity, as caco3						
Antimony, total		<2		<2	<2	<2
Arsenic, total		<4		<4	<4	<4
Barium, total		175.0		195.0	134.0	161.0
Benzene		<1		<1	<1	<1
Beryllium, total		<4		<4	<4	<4
Bis(2-ethylhexyl) phthalate						
Bromochloromethane		<1		<1	<1	<1
Bromodichloromethane		<1		<1	<1	<1
Bromoform		<1		<1	<1	<1
Bromomethane		<1		<1	<1	<1
Cadmium, total		<.8		<.8	<.8	<.8
Calcium, total						
Carbon disulfide		<1		<1	<1	<1
Carbon tetrachloride		<1		<1	<1	<1
Chloride						
Chlorobenzene		<1		<1	<1	<1
Chloroethane		<1		<1	<1	<1
Chloroform		<1		<1	<1	<1
Chloromethane		<1		<1	<1	<1
Chromium, total	<8.0	<8.0		<8.0	<8.0	<8.0
Cis-1,2-dichloroethylene		<1		<1	<1	<1
Cis-1,3-dichloropropene		<1		<1	<1	<1
Cobalt, total		<.4		<.4	<.4	.5
Copper, total		<4		<4	<4	<4
Dibromochloromethane		<1		<1	<1	<1
Dibromomethane		<1		<1	<1	<1
Dichlorodifluoromethane						
Ethylbenzene		<1		<1	<1	<1
Lead, total		9.9	<4.0	<4.0	<4.0	<4.0
Magnesium, total						
Methyl iodide		<1		<1	<1	<1
Methylene chloride		<5		<5	<5	<5
Nickel, total		<4.0		<4.0	<4.0	<4.0
Potassium, total						
Selenium, total		<4		<4	<4	<4
Silver, total		<4		<4	<4	<4
Sodium, total						
Solids, total dissolved						
Solids, total suspended						
Styrene		<1		<1	<1	<1
Sulfate						
Tetrachloroethylene		<1		<1	<1	<1
Thallium, total		<2		<2	<2	<2
Toluene		<1		<1	<1	<1
Trans-1,2-dichloroethylene		<1		<1	<1	<1
Trans-1,3-dichloropropene		<1		<1	<1	<1
Trans-1,4-dichloro-2-butene		<5		<5	<5	<5
Trichloroethylene		<1		<1	<1	<1
Trichlorofluoromethane		<1		<1	<1	<1
Vanadium, total		<20		<20	<20	<20
Vinyl acetate		<5		<5	<5	<5
Vinyl chloride		<1		<1	<1	<1
Xylenes, total		<2		<2	<2	<2
Zinc, total		<20.0		<20.0	<20.0	<20.0

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

Table 9

Analytical Data Summary for MW-6

Constituents	Units	3/30/2014	9/19/2014	9/30/2014	4/20/2015	7/9/2015	10/5/2015	4/5/2016	10/5/2016	4/4/2017
(3 4)-methylphenol	ug/L	<8								
1,1,1,2-tetrachloroethane	ug/L	<1	<1		<1		<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1		<1		<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1		<1		<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1		<1		<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1		<1		<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1		<1		<1	<1	<1	<1
1,1-dichloropropene	ug/L	<1								
1,2,3-trichloropropane	ug/L	<1	<1		<1		<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L	<8								
1,2,4-trichlorobenzene	ug/L	<1								
1,2-dibromo-3-chloropropane	ug/L	<1	<1		<1		<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1		<1		<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1		<1		<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1		<1		<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1		<1		<1	<1	<1	<1
1,2-dinitrobenzene	ug/L	<8								
1,3,5-trinitrobenzene	ug/L	<8								
1,3-dichlorobenzene	ug/L	<1								
1,3-dichloropropane	ug/L	<1								
1,3-dinitrobenzene	ug/L	<8								
1,4-dichlorobenzene	ug/L	<1	<1		<1		<1	<1	<1	<1
1,4-naphthoquinone	ug/L	<8								
1,4-phenylenediamine	ug/L	<8								
1-naphthylamine	ug/L	<8								
2,2-dichloropropane	ug/L	<1								
2,3,4,6-tetrachlorophenol	ug/L	<8								
2,4,5-t	ug/L	<.6								
2,4,5-tp (silvex)	ug/L	<.6								
2,4,5-trichlorophenol	ug/L	<8								
2,4,6-trichlorophenol	ug/L	<8								
2,4-d	ug/L	<2.6								
2,4-dichlorophenol	ug/L	<8								
2,4-dimethylphenol	ug/L	<8								
2,4-dinitrophenol	ug/L	<8								
2,4-dinitrotoluene	ug/L	<8								
2,6-dichlorophenol	ug/L	<8								
2,6-dinitrotoluene	ug/L	<8								
2-acetylaminofluorene	ug/L	<8								
2-butanone (mek)	ug/L	<5	<5		<5		<5	<5	<5	<5
2-chloronaphthalene	ug/L	<8								
2-chlorophenol	ug/L	<8								
2-hexanone (mbk)	ug/L	<5	<5		<5		<5	<5	<5	<5
2-methylnaphthalene	ug/L	<8								
2-methylphenol	ug/L	<8								
2-naphthylamine	ug/L	<8								
2-nitroaniline	ug/L	<8								
2-nitrophenol	ug/L	<8								
3,3´-dichlorobenzidine	ug/L	<8								
3,3'-dimethylbenzidine	ug/L	<8								
3-methylcholanthrene	ug/L	<8								
3-nitroaniline	ug/L	<8								
4,4´-ddd	ug/L	<.05								
4,4´-dde	ug/L	<.05								
4,4´-ddt	ug/L	<.05								
4,6-dinitro-2-methylphenol	ug/L	<8								
4-aminobiphenyl	ug/L	<8								
4-bromophenyl phenyl ether	ug/L	<8								
4-chloro-3-methylphenol	ug/L	<8								
4-chloroaniline	ug/L	<8								
4-chlorophenyl phenyl ether	ug/L	<8								
4-methyl-2-pentanone (mibk)	ug/L	<5	<5		<5		<5	<5	<5	<5
4-nitroaniline	ug/L	<8								
4-nitrophenol	ug/L	<8								
5-nitro-o-toluidine	ug/L	<8								
7,12-dimethylbenz(a)anthracene	ug/L	<8								
Acenaphthene	ug/L	<8								
Acenaphthylene	ug/L	<8								
Acetone	ug/L	<10.0	<10.0		<10.0		<10.0	<10.0	<10.0	<10.0
Acetonitrile	ug/L	<10								
Acetophenone	ug/L	<8								
Acrolein	ug/L	<10								
Acrylonitrile	ug/L	<5	<5		<5		<5	<5	<5	<5
Aldrin	ug/L	<.05								
Alkalinity, as caco3	mg/L									
Allyl chloride	ug/L	<1								
Alpha-bhc	ug/L	<.05								

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

Table 9

Analytical Data Summary for MW-6

Constituents	10/3/2017	1/3/2018	4/10/2018	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021
(3 4)-methylphenol					<8				
1,1,1,2-tetrachloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene					<1				
1,2,3-trichloropropane	<1		<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene					<8				
1,2,4-trichlorobenzene					<1				
1,2-dibromo-3-chloropropane	<1		<1	<1	<1	<1	<5	<5	<5
1,2-dibromoethane	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene					<8				
1,3,5-trinitrobenzene					<8				
1,3-dichlorobenzene					<1				
1,3-dichloropropane					<1				
1,3-dinitrobenzene					<8				
1,4-dichlorobenzene	<1		<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone					<8				
1,4-phenylenediamine					<8				
1-naphthylamine					<8				
2,2-dichloropropane					<1				
2,3,4,6-tetrachlorophenol					<8				
2,4,5-t					<.5				
2,4,5-tp (silvex)					<.5				
2,4,5-trichlorophenol					<8				
2,4,6-trichlorophenol					<8				
2,4-d					<2.0				
2,4-dichlorophenol					<8				
2,4-dimethylphenol					<8				
2,4-dinitrophenol					<8				
2,4-dinitrotoluene					<8				
2,6-dichlorophenol					<8				
2,6-dinitrotoluene					<8				
2-acetylaminofluorene					<8				
2-butanone (mek)	<5		<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene					<8				
2-chlorophenol					<8				
2-hexanone (mbk)	<5		<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene					<8				
2-methylphenol					<8				
2-naphthylamine					<8				
2-nitroaniline					<8				
2-nitrophenol					<8				
3,3´-dichlorobenzidine					<8				
3,3'-dimethylbenzidine					<8				
3-methylcholanthrene					<8				
3-nitroaniline					<8				
4,4´-ddd					<.05				
4,4´-dde					<.05				
4,4´-ddt					<.05				
4,6-dinitro-2-methylphenol					<8				
4-aminobiphenyl					<8				
4-bromophenyl phenyl ether					<8				
4-chloro-3-methylphenol					<8				
4-chloroaniline					<8				
4-chlorophenyl phenyl ether					<8				
4-methyl-2-pentanone (mibk)	<5		<5	<5	<5	<5	<5	<5	<5
4-nitroaniline					<8				
4-nitrophenol					<8				
5-nitro-o-toluidine					<8				
7,12-dimethylbenz(a)anthracene					<8				
Acenaphthene					<8				
Acenaphthylene					<8				
Acetone	16.2		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile					<10				
Acetophenone					<8				
Acrolein					<10				
Acrylonitrile	<5		<5	<5	<5	<5	<5	<5	<5
Aldrin					<.05				
Alkalinity, as caco3					504				
Allyl chloride					<1				
Alpha-bhc					<.05				

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

Table 9

Analytical Data Summary for MW-6

Constituents	10/5/2021	4/4/2022	10/5/2022	4/14/2023	10/18/2023	4/8/2024	10/8/2024
(3 4)-methylphenol						<8	
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene						<1	
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene						<8	
1,2,4-trichlorobenzene						<1	
1,2-dibromo-3-chloropropane	<5	<5	<5	<5	<5	<1	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene						<8	
1,3,5-trinitrobenzene						<8	
1,3-dichlorobenzene						<1	
1,3-dichloropropane						<1	
1,3-dinitrobenzene						<8	
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone						<8	
1,4-phenylenediamine						<8	
1-naphthylamine						<8	
2,2-dichloropropane						<1	
2,3,4,6-tetrachlorophenol						<8	
2,4,5-t						<.5	
2,4,5-tp (silvex)						<.5	
2,4,5-trichlorophenol						<8	
2,4,6-trichlorophenol						<8	
2,4-d						<2.0	
2,4-dichlorophenol						<8	
2,4-dimethylphenol						<8 *	
2,4-dinitrophenol						<8	
2,4-dinitrotoluene						<8	
2,6-dichlorophenol						<8	
2,6-dinitrotoluene						<8	
2-acetylaminofluorene						<8	
2-butanone (mek)	<5	<10	<10	<10	<10	<5	<10
2-chloronaphthalene						<8	
2-chlorophenol						<8	
2-hexanone (mbk)	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene						<8	
2-methylphenol							
2-naphthylamine						<8	
2-nitroaniline						<8	
2-nitrophenol						<8	
3,3´-dichlorobenzidine						<8	
3,3'-dimethylbenzidine						<8	
3-methylcholanthrene						<8	
3-nitroaniline						<8	
4,4´-ddd						<.05	
4,4´-dde						<.05	
4,4´-ddt						<.05	
4,6-dinitro-2-methylphenol						<8	
4-aminobiphenyl						<8	
4-bromophenyl phenyl ether						<8	
4-chloro-3-methylphenol						<8	
4-chloroaniline						<8	
4-chlorophenyl phenyl ether						<8	
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline						<8	
4-nitrophenol						<8	
5-nitro-o-toluidine						<8	
7,12-dimethylbenz(a)anthracene						<8	
Acenaphthene						<8	
Acenaphthylene						<8	
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile						<10	
Acetophenone						<8	
Acrolein						<10	
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5
Aldrin						<.05	
Alkalinity, as caco3							
Allyl chloride						<1	
Alpha-bhc						<.05	

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

Table 9

Analytical Data Summary for MW-6

Constituents	Units	3/30/2014	9/19/2014	9/30/2014	4/20/2015	7/9/2015	10/5/2015	4/5/2016	10/5/2016	4/4/2017
Anthracene	ug/L	<8								
Antimony, total	ug/L	<2	<2		<2		<2	<2	<2	<2
Arochlor 1016	ug/L	<.1								
Arochlor 1221	ug/L	<.2								
Arochlor 1232	ug/L	<.2								
Arochlor 1242	ug/L	<.2								
Arochlor 1248	ug/L	<.2								
Arochlor 1254	ug/L	<.1								
Arochlor 1260	ug/L	<.1								
Arsenic, total	ug/L	<4	<4		<4		<4	<4	<4	<4
Azobenzene	ug/L	<8								
Barium, total	ug/L	612	591		717		479	408	231	154
Benzene	ug/L	<1	<1		<1		<1	<1	<1	<1
Benzo(a)anthracene	ug/L	<8								
Benzo(a)pyrene	ug/L	<8								
Benzo(b)fluoranthene	ug/L	<8								
Benzo(g,h,i)perylene	ug/L	<8								
Benzo(k)fluoranthene	ug/L	<8								
Benzyl alcohol	ug/L	<8								
Beryllium, total	ug/L	<4	<4		<4		<4	<4	<4	<4
Beta-bhc	ug/L	<.05								
Bis (2-chloroethoxy) methane	ug/L	<8								
Bis(2-chloroethyl) ether	ug/L	<8								
Bis(2-chloroisopropyl) ether	ug/L	<8								
Bis(2-ethylhexyl) phthalate	ug/L	36		<10	<10	<10	<10	<10	<10	<10
Bromochloromethane	ug/L	<1	<1		<1		<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1		<1		<1	<1	<1	<1
Bromoform	ug/L	<1	<1		<1		<1	<1	<1	<1
Bromomethane	ug/L	<1	<1		<1		<1	<1	<1	<1
Butyl benzyl phthalate	ug/L	<8								
Cadmium, total	ug/L	<.8	<.8		<.8		<.8	<.8	<.8	<.8
Calcium, total	mg/L									
Carbon disulfide	ug/L	<1	<1		<1		<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1		<1		<1	<1	<1	<1
Chlordane	ug/L	<.1								
Chloride	mg/L									
Chlorobenzene	ug/L	<1	<1		<1		<1	<1	<1	<1
Chlorobenzilate	ug/L	<8								
Chloroethane	ug/L	<1	<1		<1		<1	<1	<1	<1
Chloroform	ug/L	<1	<1		<1		<1	<1	<1	<1
Chloromethane	ug/L	<1	<1		<1		<1	<1	<1	<1
Chloroprene	ug/L	<1								
Chromium, total	ug/L	<8	<8		<8		<8	<8	<8	<8
Chrysene	ug/L	<8								
Cis-1,2-dichloroethylene	ug/L	<1	<1		<1		<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1		<1		<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	<.8		10.0		<.8	<.8	<.8	<.8
Copper, total	ug/L	6.0	4.5		4.2		<4.0	<4.0	<4.0	<4.0
Cyanide, total	mg/L	<.005								
Delta-bhc	ug/L	<.05								
Diallate	ug/L	<8								
Dibenzo(a,h)anthracene	ug/L	<8								
Dibenzofuran	ug/L	<8								
Dibromochloromethane	ug/L	<1	<1		<1		<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1		<1		<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	3.5	1.3		1.0		<1.0	<1.0	1.0	<1.0
Dieldrin	ug/L	<.05								
Diethyl phthalate	ug/L	<8								
Dimethoate	ug/L	<.5								
Dimethylphthalate	ug/L	<8								
Di-n-butyl phthalate	ug/L	<8								
Di-n-octyl phthalate	ug/L	<8								
Dinoseb	ug/L	<.6								
Diphenylamine	ug/L	<8								
Disulfoton	ug/L	<.5								
Endosulfan i	ug/L	<.05								
Endosulfan ii	ug/L	<.05								
Endosulfan sulfate	ug/L	<.05								
Endrin	ug/L	<.05								
Endrin aldehyde	ug/L	<.05								
Ethyl methacrylate	ug/L	<10								
Ethyl methanesulfonate	ug/L	<8								
Ethylbenzene	ug/L	<1	<1		<1		<1	<1	<1	<1
Famphur	ug/L	<.5								
Fluoranthene	ug/L	<8								
Fluorene	ug/L	<8								
Gamma-bhc (lindane)	ug/L	<.05								

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

Table 9

Analytical Data Summary for MW-6

Constituents	10/3/2017	1/3/2018	4/10/2018	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021
Anthracene					<8				
Antimony, total	<2		<2	<2	<2	<2	<2	<2	<2
Arochlor 1016					<.1				
Arochlor 1221					<.2				
Arochlor 1232					<.2				
Arochlor 1242					<.2				
Arochlor 1248					<.2				
Arochlor 1254					<.1				
Arochlor 1260					<.1				
Arsenic, total	<4		<4	<4	<4	<4	<4	<4	<4
Azobenzene					<8				
Barium, total	573	613	435	289	274	409	209	226	180
Benzene	<1		<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene					<8				
Benzo(a)pyrene					<8				
Benzo(b)fluoranthene					<8				
Benzo(g,h,i)perylene					<8				
Benzo(k)fluoranthene					<8				
Benzyl alcohol					<8				
Beryllium, total	<4		<4	<4	<4	<4	<4	<4	<4
Beta-bhc					<.05				
Bis (2-chloroethoxy) methane					<8				
Bis(2-chloroethyl) ether					<8				
Bis(2-chloroisopropyl) ether					<8				
Bis(2-ethylhexyl) phthalate	10		<6	<6	<6	<6	<6	<6	
Bromochloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Bromoform	<1		<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1		<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate					<8				
Cadmium, total	<.8		<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total					97.9				
Carbon disulfide	<1		<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1		<1	<1	<1	<1	<1	<1	<1
Chlordane					<.1				
Chloride					28.6				
Chlorobenzene	<1		<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate					<8				
Chloroethane	<1		<1	<1	<1	<1	<1	<1	<1
Chloroform	<1		<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Chloroprene					<1				
Chromium, total	<8		<8	<8	<8	<8	<8	<8	<8
Chrysene					<8				
Cis-1,2-dichloroethylene	<1		<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1		<1	<1	<1	<1	<1	<1	<1
Cobalt, total	1.7	1.5	<.8	<.8	<.8	.8	.9	.5	.6
Copper, total	<4.0		<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide, total					<.005				
Delta-bhc					<.05				
Diallate					<8				
Dibenzo(a,h)anthracene					<8				
Dibenzofuran					<8				
Dibromochloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1		<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0		
Dieldrin					<.05				
Diethyl phthalate					<8				
Dimethoate					<.4				
Dimethylphthalate					<8				
Di-n-butyl phthalate					<8				
Di-n-octyl phthalate					<8				
Dinoseb					<.5				
Diphenylamine					<8				
Disulfoton					<.4				
Endosulfan i					<.05				
Endosulfan ii					<.05				
Endosulfan sulfate					<.05				
Endrin					<.05				
Endrin aldehyde					<.05				
Ethyl methacrylate					<10				
Ethyl methanesulfonate					<8				
Ethylbenzene	<1		<1	<1	<1	<1	<1	<1	<1
Famphur					<.4				
Fluoranthene					<8				
Fluorene					<8				
Gamma-bhc (lindane)					<.05				

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

Table 9

Analytical Data Summary for MW-6

Constituents	10/5/2021	4/4/2022	10/5/2022	4/14/2023	10/18/2023	4/8/2024	10/8/2024
Anthracene						<8	
Antimony, total	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016						<.2	
Arochlor 1221						<.2	
Arochlor 1232						<.2	
Arochlor 1242						<.2	
Arochlor 1248						<.2	
Arochlor 1254						<.2	
Arochlor 1260						<.2	
Arsenic, total	<4	<4	<4	<4	<4	<4	<4
Azobenzene						<8	
Barium, total	497	521	551	133	431	171	519
Benzene	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene						<8	
Benzo(a)pyrene						<8	
Benzo(b)fluoranthene						<8	
Benzo(g,h,i)perylene						<8	
Benzo(k)fluoranthene						<8	
Benzyl alcohol						<8	
Beryllium, total	<4	<4	<4	<4	<4	<4	<4
Beta-bhc						<.05	
Bis (2-chloroethoxy) methane						<8	
Bis(2-chloroethyl) ether						<8	
Bis(2-chloroisopropyl) ether						<8	
Bis(2-ethylhexyl) phthalate						32	<13
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate						<8	
Cadmium, total	1.1	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total							
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1
Chlordane						<.1	
Chloride							
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate						<8	
Chloroethane	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1
Chloroprene						<1	
Chromium, total	<8	<8	<8	<8	<8	<8	<8
Chrysene						<8	
Cis-1,2-dichloroethylene	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	4.1	.5	5.3	<.4	2.3	<.4	2.2
Copper, total	<4.0	<4.0	6.9	<4.0	4.1	<4.0	<4.0
Cyanide, total						<.005	
Delta-bhc						<.05	
Diallate						<8	
Dibenzo(a,h)anthracene						<8	
Dibenzofuran						<8	
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane						<1.0	
Dieldrin						<.05	
Diethyl phthalate						<8	
Dimethoate						<.4	
Dimethylphthalate						<8	
Di-n-butyl phthalate						<8	
Di-n-octyl phthalate						<8	
Dinoseb						<.5	
Diphenylamine						<8	
Disulfoton						<.4	
Endosulfan i						<.05	
Endosulfan ii						<.05	
Endosulfan sulfate						<.05	
Endrin						<.05	
Endrin aldehyde						<.05	
Ethyl methacrylate						<10	
Ethyl methanesulfonate						<8	
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1
Famphur						<.4	
Fluoranthene						<8	
Fluorene						<8	
Gamma-bhc (lindane)						<.05	

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

Table 9

Analytical Data Summary for MW-6

Constituents	Units	3/30/2014	9/19/2014	9/30/2014	4/20/2015	7/9/2015	10/5/2015	4/5/2016	10/5/2016	4/4/2017
Heptachlor	ug/L	<.05								
Heptachlor epoxide	ug/L	<.05								
Hexachlorobenzene	ug/L	<4.03 *								
Hexachlorobutadiene	ug/L	<8								
Hexachlorocyclopentadiene	ug/L	<8								
Hexachloroethane	ug/L	<8								
Hexachloropropene	ug/L	<8								
Indeno(1,2,3-cd)pyrene	ug/L	<8								
Isobutanol	mg/L	<1								
Isodrin	ug/L	<8								
Isophorone	ug/L	<8								
Isosafrole	ug/L	<8								
Kepone	ug/L	<8								
Lead, total	ug/L	<4	<4		<4		<4	<4	<4	<4
Magnesium, total	mg/L									
Mercury, total	ug/L	<.5								
Methacrylonitrile	ug/L	<1								
Methapyrilene	ug/L	<8								
Methoxychlor	ug/L	<.05								
Methyl iodide	ug/L	<1	<1		<1		<1	<1	<1	<1
Methyl methacrylate	ug/L	<1								
Methyl methanesulfonate	ug/L	<8								
Methyl parathion	ug/L	<.5								
Methylene chloride	ug/L	<5	<5		<5		<5	<5	<5	<5
Naphthalene	ug/L	<8								
Nickel, total	ug/L	13.8	54.6		14.6		7.7	5.5	<4.0	<4.0
Nitrobenzene	ug/L	<8								
N-nitrosodiethylamine	ug/L	<8								
N-nitrosodimethylamine	ug/L	<8								
N-nitrosodi-n-butylamine	ug/L	<8								
N-nitroso-di-n-propylamine	ug/L	<8								
N-nitrosodiphenylamine	ug/L	<8								
N-nitrosomethylethylamine	ug/L	<8								
N-nitrosopiperidine	ug/L	<8								
N-nitrosopyrrolidine	ug/L	<8								
O,o,o-triethyl phosphorothioate	ug/L	<.5								
O-toluidine	ug/L	<8								
Parathion	ug/L	<.5								
P-dimethylaminoazobenzene	ug/L	<8								
Pentachlorobenzene	ug/L	<8								
Pentachloronitrobenzene (pcnb)	ug/L	<8								
Pentachlorophenol	ug/L	<8								
Phenacetin	ug/L	<8								
Phenanthrene	ug/L	<8								
Phenol	ug/L	<8								
Phorate	ug/L	<.5								
Potassium, total	mg/L									
Pronamide	ug/L	<8								
Propionitrile	ug/L	<10								
Pyrene	ug/L	<8								
Safrole	ug/L	<8								
Selenium, total	ug/L	<4	<4		<4		<4	<4	<4	<4
Silver, total	ug/L	<4	<4		<4		<4	<4	<4	<4
Sodium, total	mg/L									
Solids, total dissolved	mg/L									
Solids, total suspended	mg/L		232		58					
Styrene	ug/L	<1	<1		<1		<1	<1	<1	<1
Sulfate	mg/L									
Sulfide, total	mg/L	<.1								
Tetrachloroethylene	ug/L	<1	<1		<1		<1	<1	<1	<1
Thallium, total	ug/L	<4	<4		<4		<4	<4	<4	<4
Thionazin	ug/L	<.5								
Tin, total	ug/L	<20								
Toluene	ug/L	<1	<1		<1		<1	<1	<1	<1
Toxaphene	ug/L	<.2								
Trans-1,2-dichloroethylene	ug/L	<1	<1		<1		<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1		<1		<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5		<5		<5	<5	<5	<5
Trichloroethylene	ug/L	<1	<1		<1		<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1		<1		<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20		<20		<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5		<5		<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1		<1		<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2		<2		<2	<2	<2	<2
Zinc, total	ug/L	42.5	98.8		9.1		8.7	9.3	<8.0	<8.0

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

Table 9

Analytical Data Summary for MW-6

Constituents	10/3/2017	1/3/2018	4/10/2018	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021
Heptachlor					<.05				
Heptachlor epoxide					<.05				
Hexachlorobenzene					<.05				
Hexachlorobutadiene					<8				
Hexachlorocyclopentadiene					<8				
Hexachloroethane					<8				
Hexachloropropene					<8				
Indeno(1,2,3-cd)pyrene					<8				
Isobutanol					<1				
Isodrin					<8				
Isophorone					<8				
Isosafrole					<8				
Kepone					<8				
Lead, total	<4		<4	<4	<4	<4	<4	<4	<4
Magnesium, total					31.8				
Mercury, total					<.5				
Methacrylonitrile					<1				
Methapyrilene					<8				
Methoxychlor					<.05				
Methyl iodide	<1		<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate					<1				
Methyl methanesulfonate					<8				
Methyl parathion					<.4				
Methylene chloride	<5		<5	<5	<5	<5	<5	<5	<5
Naphthalene					<8				
Nickel, total	9.3	9.4	7.5	<4.0	<4.0	8.1	<4.0	<4.0	<4.0
Nitrobenzene					<8				
N-nitrosodiethylamine					<8				
N-nitrosodimethylamine					<8				
N-nitrosodi-n-butylamine					<8				
N-nitroso-di-n-propylamine					<8				
N-nitrosodiphenylamine					<8				
N-nitrosomethylethylamine					<8				
N-nitrosopiperidine					<8				
N-nitrosopyrrolidine					<8				
O,o,o-triethyl phosphorothioate					<.4				
O-toluidine					<8				
Parathion					<.4				
P-dimethylaminoazobenzene					<8				
Pentachlorobenzene					<8				
Pentachloronitrobenzene (pcnb)					<8				
Pentachlorophenol					<8				
Phenacetin					<8				
Phenanthrene					<8				
Phenol					<8				
Phorate					<.4				
Potassium, total					1				
Pronamide					<8				
Propionitrile					<10				
Pyrene					<8				
Safrole					<8				
Selenium, total	<4		<4	<4	<4	<4	<4	<4	<4
Silver, total	<4		<4	<8	<4	<4	<4	<4	<4
Sodium, total					10				
Solids, total dissolved					500				
Solids, total suspended									
Styrene	<1		<1	<1	<1	<1	<1	<1	<1
Sulfate					16.4				
Sulfide, total					<.1				
Tetrachloroethylene	<1		<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4		<4	<4	<2	<2	<2	<2	<2
Thionazin					<.4				
Tin, total					<20				
Toluene	<1		<1	<1	<1	<1	<1	<1	<1
Toxaphene					<.2				
Trans-1,2-dichloroethylene	<1		<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1		<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5		<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	<1		<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1		<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20		<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5		<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1		<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2		<2	<2	<2	<2	<2	<2	<2
Zinc, total	<8.0		<20.0	<20.0	<8.0	<8.0	<20.0	<20.0	<20.0

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

Table 9

Analytical Data Summary for MW-6

Constituents	10/5/2021	4/4/2022	10/5/2022	4/14/2023	10/18/2023	4/8/2024	10/8/2024
Heptachlor						<.05	
Heptachlor epoxide						<.05	
Hexachlorobenzene						<.05	
Hexachlorobutadiene						<8	
Hexachlorocyclopentadiene						<8	
Hexachloroethane						<8	
Hexachloropropene						<8	
Indeno(1,2,3-cd)pyrene						<8	
Isobutanol						<1	
Isodrin						<8	
Isophorone						<8	
Isosafrole						<8	
Kepone						<8	
Lead, total	<4	<4	<4	<4	<4	<4	<4
Magnesium, total							
Mercury, total						<.5	
Methacrylonitrile						<1	
Methapyrilene						<8	
Methoxychlor						<.05	
Methyl iodide	<1	<1	<1	<1	<1	<2	<1
Methyl methacrylate						<1	
Methyl methanesulfonate						<8	
Methyl parathion						<.4	
Methylene chloride	<5	<5	<5	<5	<5	<5	<5
Naphthalene						<8	
Nickel, total	8.6	9.1	10.9	<4.0	10.0	<4.0	12.9
Nitrobenzene						<8	
N-nitrosodiethylamine						<8	
N-nitrosodimethylamine						<8	
N-nitrosodi-n-butylamine						<8	
N-nitroso-di-n-propylamine						<8	
N-nitrosodiphenylamine						<8	
N-nitrosomethylethylamine						<8	
N-nitrosopiperidine						<8	
N-nitrosopyrrolidine						<8	
O,o,o-triethyl phosphorothioate						<.4	
O-toluidine						<8	
Parathion						<.4	
P-dimethylaminoazobenzene						<8	
Pentachlorobenzene						<8	
Pentachloronitrobenzene (pcnb)						<8	
Pentachlorophenol						<8	
Phenacetin						<8	
Phenanthrene						<8	
Phenol						<8	
Phorate						<.4	
Potassium, total							
Pronamide						<8	
Propionitrile						<10	
Pyrene						<8	
Safrole						<8	
Selenium, total	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4
Sodium, total							
Solids, total dissolved							
Solids, total suspended							
Styrene	<1	<1	<1	<1	<1	<1	<1
Sulfate							
Sulfide, total						<.3	
Tetrachloroethylene	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2	<2	<2
Thionazin						<.4	
Tin, total						<20	
Toluene	<1	<1	<1	<1	<1	<1	<1
Toxaphene						<.2	
Trans-1,2-dichloroethylene	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	20.1	<20.0	<20.0	<20.0

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

Table 10 – Historic SSI and SSL **- (Not Required, but Included)**

Table 10
Historic SSI & SSL
Annual Water Quality Report
Jones County Sanitary Landfill
Permit No. 53-SDP-01-76C

Monitoring Well	Compound	10/5/2016	4/4/2017	10/3/2017	1/3/2018	4/10/2018	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021	10/5/2021	4/4/2022	10/5/2022	4/14/2023	10/18/2023	4/8/2024	10/8/2024
MW-6	Barium																		
MW-6	Cadmium																		
MW-6	Cobalt																		
MW-6	Copper																		
MW-6	Nickel																		
MW-6	Bis(2-ethylhexyl)phthalate																		
MW-6	dichlorodifluoromethane																		

Monitoring Well	Compound	10/5/2016	4/4/2017	10/3/2017	4/10/2018	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021	10/5/2021	4/4/2022	10/5/2022	4/14/2023	10/18/2023	4/8/2024	10/8/2024
MW-15	Arsenic																	
MW-15	Barium																	
MW-15	Cobalt																	
MW-15	Nickel																	
MW-15	Selenium																	
MW-15	1,4-dichlorobenzene																	
MW-15	Benzene																	
MW-15	Chlorobenzene																	
MW-15	Chloroethane																	
MW-15	dichlorodifluoromethane																	
MW-15	Ethylbenzene																	
MW-15	Xylenes																	

Monitoring Well	Compound	4/5/2016	4/4/2017	10/3/2017	4/10/2018	10/12/2018	4/16/2019	9/30/2019	4/7/2020	10/7/2020	4/22/2021	10/5/2021	4/4/2022	10/5/2022	4/14/2023	10/18/2023	4/8/2024	10/8/2024
MW-22	Arsenic																	
MW-22	Cobalt																	
MW-22	Benzene																	

Table 11 – Corrective Action Trend Analysis **- (Not Required)**

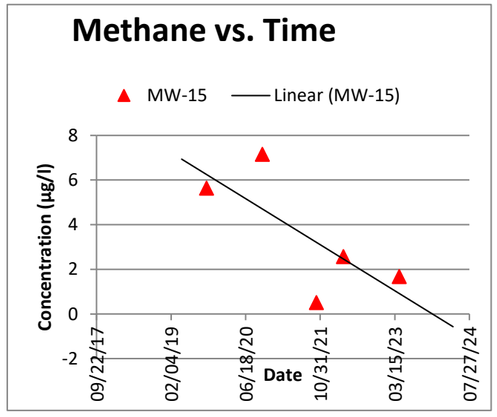
Table 12 – CAMP Methane, Ethane, Ethene, Alkalinity, and pH over time

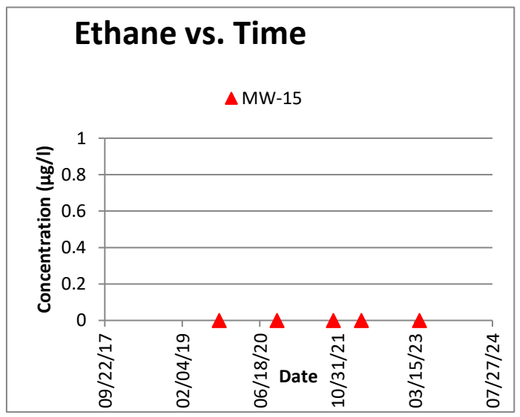
Table 12

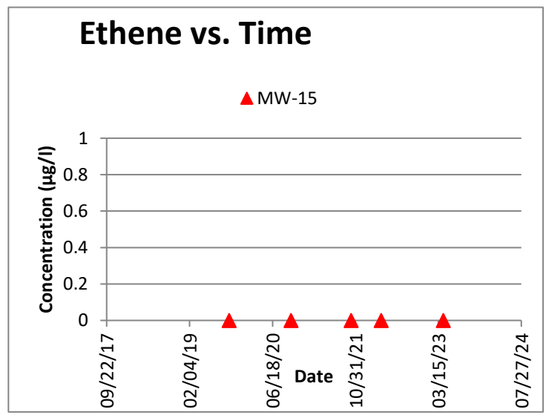
Methane, Ethane, Ethene, Alkalinity, and pH over Time

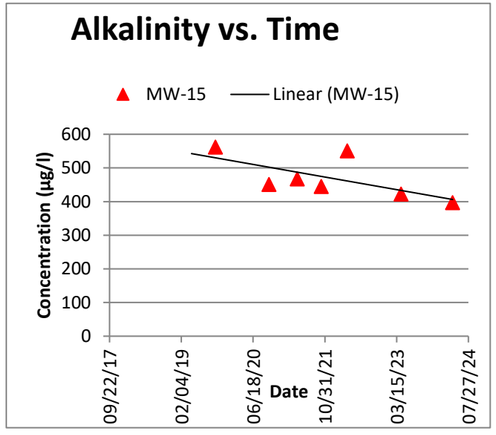
Annual Water Quality Report
Jones County Sanitary Landfill
Permit No. 53-SDP-01-76C

	Methane	Ethane	Ethene	Alkalinity	pH
	MW-15	MW-15	MW-15	MW-15	MW-15
Sample Date	mg/L	mg/L	mg/L	ug/L	ug/L
4/16/2019					
9/30/2019	5.64	<0.005	<0.005	562	
10/7/2020	7.15	<0.010	<0.010	451	6.6
4/22/2021				467	6.5
10/5/2021	0.514	<0.00828	<0.00773	445	6.6
4/4/2022	2.57	<0.00828	<0.00773	551	6.6
4/14/2023	1.67	<0.007	<0.010	422	6.4
4/8/2024				397	6.6









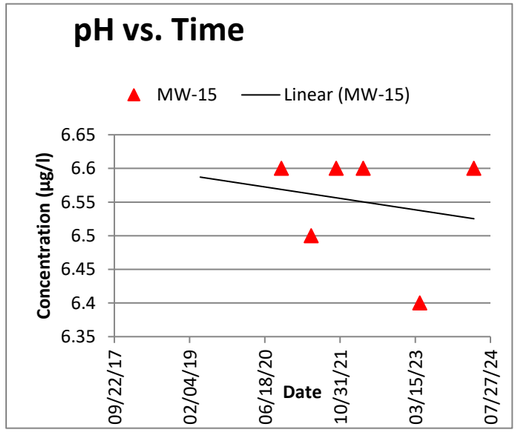


Table 13 – Leachate Summary

Table 13
Leachate Evaluation Report
Jones County Sanitary Landfill
Permit No. 53-SDP-01-76C

LPZ-6

Date	Top Casing Elevation	Depth to Liquid (ft)	Leachate Elevation	Landfill Base Elevation	Thickness Leachate (ft)
3/30/2014	979.7	17	962.7	957.55	5.15
9/19/2014	979.7	16.58	963.12	957.55	5.57
3/20/2015	979.7	18.35	961.35	957.55	3.8
4/20/2015	979.7	18.49	961.21	957.55	3.66
7/9/2015	979.7	16.9	962.8	957.55	5.25
10/5/2015	979.7	18.4	961.3	957.55	3.75
2/25/2016	979.7	18.67	961.03	957.55	3.48
4/5/2016	979.7	16.8	962.9	957.55	5.35
7/12/2016	979.7	16.7	963	957.55	5.45
10/5/2016	979.7	16.87	962.83	957.55	5.28
1/11/2017	979.7	18.2	961.5	957.55	3.95
4/4/2017	979.7	13.95	965.75	957.55	8.2
7/10/2017	979.7	15.4	964.3	957.55	6.75
10/3/2017	979.7	18.4	961.3	957.55	3.75
1/3/2018	979.7	22.2	957.5	957.55	-0.05
4/10/2018	979.7	15.55	964.15	957.55	6.6
7/12/2018	979.7	17.05	962.65	957.55	5.1
10/12/2018	979.7	15.52	964.18	957.55	6.63
3/21/2019	979.7	13.9	965.8	957.55	8.25
4/14/2019	979.7	17.03	962.67	957.55	5.12
9/30/2019	979.7	15.4	964.3	957.55	6.75
12/20/2019	979.7	16.63	963.07	957.55	5.52
1/30/2020	979.7	NR	NR	957.55	NR
4/7/2020	979.7	15.45	964.25	957.55	6.7
8/3/2020	979.7	18	961.7	957.55	4.15
10/7/2020	979.7	17.1	962.6	957.55	5.05
1/8/2021	979.7	14.1	965.6	957.55	8.05
4/22/2021	979.7	16.6	963.1	957.55	5.55
10/5/2021	979.7	22.45	957.25	957.55	-0.3
4/4/2022	979.7	13.3	966.4	957.55	8.85
10/5/2022	979.7	18	961.7	957.55	4.15
4/14/2023	979.7	15.65	964.05	957.55	6.5
10/18/2023	979.7	17.3	962.4	957.55	4.85
4/8/2024	979.7	15.66	964.04	957.55	6.49
10/8/2024	979.7	18.11	961.59	957.55	4.04

Table 14 – Gas Monitoring Summary

Table 14
Annual Methane Gas Evaluation Report
Jones County Sanitary Landfill
Permit No. 53-SDP-01-76C

Location/Date	4/8/24		10/8/24	
	% LEL	Exposed Screen	% LEL	Exposed Screen
#1	0*	---	0*	---
#2	0*	---	0*	---
#3	0*	---	0*	---
#4	0*	---	0*	---
#5	0*	---	0*	---
Equipment Bldg	0	---	0	---
Office - Shop	0	---	0	---
MW-6**	0	---	0	---
MW-6 Top of Screen Elevation	995.93	---	995.93	---
MW-6 Water Elevation	997.05	---	989.51	---
MW-6 Exposed Screen (ft)**	-1.12	no	6.42	yes
MW-11**	0		0	
MW-11 Top of Screen Elevation	1007.83		1007.83	
MW-11 Water Elevation	1000.81		998.32	
MW-11 Exposed Screen (ft)	7.02	yes	9.51	yes
GP-1 (bottom 2.0 ft is screen)	0	no - 3' H2O in probe	0	yes - dry probe
GP-2 (bottom 4.5 ft is screen)	0	yes - dry probe	0	yes - dry probe
GP-3 (bottom 5.0 ft is screen)	**7.6**	yes - dry probe	0	yes - dry probe
GP-4 (bottom 3.5 ft is screen)	0	yes - dry probe	0	yes - dry probe

*Explosive gas concentrations were recorded in the breathing zone continuously. The concentrations are reported at each reference location for ease in presentation of data.

**Headspace in monitoring wells was monitored. A negative value for exposed screen indicates that the static water elevation was above the screen.

Appendix A

Field Sampling Forms

JONES COUNTY SANITARY LANDFILL
PERMIT # 53-SDP-01-76

4/8/2024 Sampled by: Todd Whipple Weather conditions: Sunny, breezy, 49-63 degrees

IDNR Form 542-1322

Monitoring Well: MW 6 (dg)

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

GENERAL INFORMATION

TOC	1012.71
Well Depth	36.78
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	1012.71
Well Depth	36.78
Top Screen	995.93
Bottom Screen	975.93
Bottom Well	975.93
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	31.00
Top sample	981.71
Bottom sample	977.71
Turbidity(NTU)	5.82

Date	Time	Water Level	Water Elevation	Notes
4/8/2024	11:50	15.66	997.05	

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		5.82
Appendix I	Metals	150	150		5.82
Appendix I	VOC	240	240		5.82
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

TOC	1012.71	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	36.78	Before purging	4/8/2024	11:50	15.66	997.05	5.5	1.6	No
		After purging				1012.71			
		Top of Screen				995.93			
						16.78	feet above (+) or below (-) top screen		
		Bottom of Well				975.93			
		Bottom of Well	4/8/2024		36.65	976.06			
						0.13	feet sedimentation		
		Before Sampling				1012.71			
		Recovery	4/8/2024	12:07	25.55	987.16			
		Recovery	4/8/2024	14:58	16.11	996.60			
		Recovery				1012.71			
		Recovery				1012.71			

IDNR Form 542-1322

Monitoring Well: MW 11 (dg)

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

GENERAL INFORMATION

TOC	1019.23
Well Depth	26.40
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	1019.23
Well Depth	26.40
Top Screen	1007.83
Bottom Screen	992.83
Bottom Well	992.83
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	21.00
Top sample	998.23
Bottom sample	994.23
Turbidity(NTU)	1.67

Date	Time	Water Level	Water Elevation	Notes
4/8/2024	11:11	18.42	1000.81	

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	10		1.67
Appendix I	Metals	150	150		1.67
Appendix I	VOC	240	240		1.67
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

TOC	1019.23	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	24.89	Before purging	4/8/2024	11:11	18.42	1000.81	4	3.8	No
		After purging				1019.23			
		Top of Screen				1007.83			
						11.40	feet above (+) or below (-) top screen		
		Bottom of Well				992.83			
		Bottom of Well	4/8/2024		26.35	992.88			
						0.05	feet sedimentation		
		Before Sampling				1019.23			
		Recovery	4/8/2024	11:24	21.90	997.33			
		Recovery	4/8/2024	14:54	19.13	1000.10			
		Recovery				1019.23			
		Recovery				1019.23			

IDNR Form 542-1322

Monitoring Well: MW 12 (up)

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

GENERAL INFORMATION

TOC	1018.98
Well Depth	47.87
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	1018.98
Well Depth	47.87
Top Screen	981.11
Bottom Screen	971.11
Bottom Well	971.11
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	41.00
Top sample	977.98
Bottom sample	973.98
Turbidity(NTU)	2.69

Date	Time	Water Level	Water Elevation	Notes
4/8/2024	11:22	20.11	998.87	

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	10		2.69
Appendix I	Metals	150	150		2.69
Appendix I	VOC	240	240		2.69
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

TOC	1018.98	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	47.87	Before purging	4/8/2024	11:22	20.11	998.87	5	1.1	No
		After purging				1018.98			
		Top of Screen				981.11			
						37.87	feet above (+) or below (-) top screen		
		Bottom of Well				971.11			
		Bottom of Well	4/8/2024		47.70	971.28			
						0.17	feet sedimentation		
		Before Sampling				1018.98			
		Recovery	4/8/2024	11:34	38.80	980.18			
		Recovery	4/8/2024	14:55	36.43	982.55			
		Recovery				1018.98			
		Recovery				1018.98			

IDNR Form 542-1322

Monitoring Well: MW 15 (dg)

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

GENERAL INFORMATION

TOC	964.04
Well Depth	29.81
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	964.04
Well Depth	29.81
Top Screen	944.40
Bottom Screen	934.40
Bottom Well	934.40
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	24.00
Top sample	940.04
Bottom sample	936.04
Turbidity(NTU)	8.02

Date	Time	Water Level	Water Elevation	Notes
4/8/2024	13:42	10.65	953.39	

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		8.02
Appendix I	Metals	150	150		8.02
Appendix I	VOC	240	240		8.02
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	Methane	1 - qt			
Supplemental					
Total			400	0	

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

TOC	964.04	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	29.81	Before purging	4/8/2024	13:42	10.65	953.39	3.5	1.1	No
		After purging				964.04			
		Top of Screen				944.40			
						19.64	feet above (+) or below (-) top screen		
		Bottom of Well				934.40			
		Bottom of Well	4/8/2024		29.60	934.44			
						0.04	feet sedimentation		
		Before Sampling				964.04			
		Recovery	4/8/2024	13:55	11.80	952.24			
		Recovery	4/8/2024	14:37	10.78	953.26			
		Recovery				964.04			
		Recovery				964.04			

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	964.58
Well Depth	53.67
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	964.58
Well Depth	53.67
Top Screen	920.91
Bottom Screen	910.91
Bottom Well	910.91
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	48.00
Top sample	916.58
Bottom sample	912.58
Turbidity(NTU)	2.50

Date	Time	Water Level	Water Elevation	Notes
4/8/2024	13:31	18	946.58	

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		2.50
Appendix I	Metals	150	150		2.50
Appendix I	VOC	240	240		2.50
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

`	964.58	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	53.67	Before purging	4/8/2024	13:31	18.00	946.58	5	0.9	No
		After purging				964.58			
		Top of Screen				920.91			
						43.67	feet above (+) or below (-) top screen		
		Bottom of Well				910.91			
		Bottom of Well	4/8/2024		53.60	910.98			
						0.07	feet sedimentation		
		Before Sampling				964.58			
		Recovery	4/8/2024	13:41	34.30	930.28			
		Recovery	4/8/2024	14:36	33.79	930.79			
		Recovery				964.58			
		Recovery				964.58			

IDNR Form 542-1322

Monitoring Well: MW 20 (dg)

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

GENERAL INFORMATION

TOC	977.6
Well Depth	18.10
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	977.6
Well Depth	18.10
Top Screen	969.50
Bottom Screen	959.50
Bottom Well	959.50
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	13.00
Top sample	964.60
Bottom sample	960.60
Turbidity(NTU)	3.03

Date	Time	Water Level	Water Elevation	Notes
4/8/2024	12:31	1.77	975.83	

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	10		3.03
Appendix I	Metals	150	150		3.03
Appendix I	VOC	240	240		3.03
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

TOC	977.6	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	18.10	Before purging	4/8/2024	12:31	1.77	975.83	5	1.9	No
		After purging				977.60			
		Top of Screen				969.50			
						8.10	feet above (+) or below (-) top screen		
		Bottom of Well				959.50			
		Bottom of Well	4/8/2024		18.00	959.60			
						0.10	feet sedimentation		
		Before Sampling				977.60			
		Recovery	4/8/2024	12:42	5.80	971.80			
		Recovery	4/8/2024	14:32	1.80	975.80			
		Recovery				977.60			
		Recovery				977.60			

IDNR Form 542-1322

Monitoring Well: MW 22 (dg)

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

GENERAL INFORMATION

TOC	950.92
Well Depth	19.50
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	950.92
Well Depth	19.50
Top Screen	941.42
Bottom Screen	931.42
Bottom Well	931.42
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.00
Top sample	936.92
Bottom sample	932.92
Turbidity(NTU)	2.54

Date	Time	Water Level	Water Elevation	Notes
4/8/2024	13:00	5.33	945.59	

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		2.54
Appendix I	Metals	150	150		2.54
Appendix I	VOC	240	240		2.54
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

TOC	950.92	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.50	Before purging	4/8/2024	13:00	5.33	945.59	3	1.3	No
		After purging				950.92			
		Top of Screen				941.42			
						9.50	feet above (+) or below (-) top screen		
		Bottom of Well				931.42			
		Bottom of Well	4/8/2024		19.4	931.52			
						0.10	feet sedimentation		
		Before Sampling				950.92			
		Recovery	4/8/2024	13:19	9.20	941.72			
		Recovery	4/8/2024	14:35	5.34	945.58			
		Recovery				950.92			
		Recovery				950.92			

4/8/2024

Well	Top PVC Elevation	Depth to water (ft)	Water Elevation
MW 4	1011.36	12.22	999.14
MW 18	999.46	8.69	990.77
MW 19	988.53	30.6	957.93
MW 21	943.1	4.14	938.96

Leachate Piezometer	Top PVC Elevation	Depth to Leachate (ft)	Leachate Elevation	Depth to Bottom (ft)
LPZ-6	980.57	15.88	964.69	27.3

JONES COUNTY SANITARY LANDFILL
PERMIT # 53-SDP-01-76

6/13/2024 Sampled by: Todd Whipple Weather conditions: Sunny, breezy, 85 degrees

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	964.58
Well Depth	53.67
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	964.58
Well Depth	53.67
Top Screen	920.91
Bottom Screen	910.91
Bottom Well	910.91
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	48.00
Top sample	916.58
Bottom sample	912.58
Turbidity(NTU)	2.95

Date	Time	Water Level	Water Elevation	Notes
6/13/2024	14:12	15.45	949.13	

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		2.95
Appendix I	Metals	150	150		2.95
Appendix I	VOC	240	240		2.95
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

`	964.58	2" dia.	Date	Time	Depth	Appendix I	Gallons	# of Vol.	Purged Dry?
Well Depth	53.67	Before purging	6/13/2024	14:12	15.45	949.13		0.0	
		After purging				964.58			
		Top of Screen				920.91			
						43.67	feet above (+) or below (-) top screen		
		Bottom of Well				910.91			
		Bottom of Well	6/13/2024		53.60	910.98			
						0.07	feet sedimentation		
		Before Sampling				964.58			
		Recovery				964.58			
		Recovery				964.58			
		Recovery				964.58			
		Recovery				964.58			

JONES COUNTY SANITARY LANDFILL
PERMIT # 53-SDP-01-76

10/8/2024 Sampled by: Todd Whipple Weather conditions: Sunny, calm, 46-64 degrees

IDNR Form 542-1322

Monitoring Well: MW 6 (dg)

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

GENERAL INFORMATION

TOC	1012.71
Well Depth	36.78
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	1012.71
Well Depth	36.78
Top Screen	995.93
Bottom Screen	975.93
Bottom Well	975.93
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	31.00
Top sample	981.71
Bottom sample	977.71
Turbidity(NTU)	3.36

Date	Time	Water Level	Water Elevation	Notes
10/8/2024	9:19	23.2	989.51	

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		3.36
Appendix I	Metals	150	150		3.36
Appendix I	VOC	240	240		3.36
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

TOC	1012.71	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	36.78	Before purging	10/8/2024	9:19	23.2	989.51		0.0	
		After purging				1012.71			
		Top of Screen				995.93			
						16.78	feet above (+) or below (-) top screen		
		Bottom of Well				975.93			
		Bottom of Well	10/8/2024		36.65	976.06			
						0.13	feet sedimentation		
		Before Sampling				1012.71			
		Recovery				1012.71			
		Recovery				1012.71			
		Recovery				1012.71			
		Recovery				1012.71			

IDNR Form 542-1322

Monitoring Well: MW 11 (dg)

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

GENERAL INFORMATION

TOC	1019.23
Well Depth	26.40
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	1019.23
Well Depth	26.40
Top Screen	1007.83
Bottom Screen	992.83
Bottom Well	992.83
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	21.00
Top sample	998.23
Bottom sample	994.23
Turbidity(NTU)	3.11

Date	Time	Water Level	Water Elevation	Notes
10/8/2024	9:42	20.91	998.32	

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		3.11
Appendix I	Metals	150	150		3.11
Appendix I	VOC	240	240		3.11
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

TOC	1019.23	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	24.89	Before purging	10/8/2024	9:42	20.91	998.32		0.0	
		After purging				1019.23			
		Top of Screen				1007.83			
						11.40	feet above (+) or below (-) top screen		
		Bottom of Well				992.83			
		Bottom of Well	10/8/2024		26.35	992.88			
						0.05	feet sedimentation		
		Before Sampling				1019.23			
		Recovery				1019.23			
		Recovery				1019.23			
		Recovery				1019.23			
		Recovery				1019.23			

IDNR Form 542-1322

Monitoring Well: MW 12 (up)

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

GENERAL INFORMATION

TOC	1018.98
Well Depth	47.87
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	1018.98
Well Depth	47.87
Top Screen	981.11
Bottom Screen	971.11
Bottom Well	971.11
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	36.00
Top sample	982.98
Bottom sample	978.98
Turbidity(NTU)	2.00

Date	Time	Water Level	Water Elevation	Notes
10/8/2024	9:54	20.6	998.38	

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		2.00
Appendix I	Metals	150	150		2.00
Appendix I	VOC	240	240		2.00
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

TOC	1018.98	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	47.87	Before purging	10/8/2024	9:54	20.60	998.38		0.0	
		After purging				1018.98			
		Top of Screen				981.11			
						37.87	feet above (+) or below (-) top screen		
		Bottom of Well				971.11			
		Bottom of Well	10/8/2024		47.70	971.28			
						0.17	feet sedimentation		
		Before Sampling				1018.98			
		Recovery				1018.98			
		Recovery				1018.98			
		Recovery				1018.98			
		Recovery				1018.98			

IDNR Form 542-1322

Monitoring Well: MW 15 (dg)

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

GENERAL INFORMATION

TOC	964.04
Well Depth	29.81
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	964.04
Well Depth	29.81
Top Screen	944.40
Bottom Screen	934.40
Bottom Well	934.40
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	24.00
Top sample	940.04
Bottom sample	936.04
Turbidity(NTU)	2.79

Date	Time	Water Level	Water Elevation	Notes
10/8/2024	8:35	12.05	951.99	

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		2.79
Appendix I	Metals	150	150		2.79
Appendix I	VOC	240	240		2.79
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	Methane	1 - qt			
Supplemental					
Total			400	0	

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

TOC	964.04	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	29.81	Before purging	10/8/2024	8:35	12.05	951.99		0.0	
		After purging				964.04			
		Top of Screen				944.40			
						19.64	feet above (+) or below (-) top screen		
		Bottom of Well				934.40			
		Bottom of Well	10/8/2024		29.60	934.44			
						0.04	feet sedimentation		
		Before Sampling				964.04			
		Recovery				964.04			
		Recovery				964.04			
		Recovery				964.04			
		Recovery				964.04			

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	964.58
Well Depth	53.67
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	964.58
Well Depth	53.67
Top Screen	920.91
Bottom Screen	910.91
Bottom Well	910.91
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	48.00
Top sample	916.58
Bottom sample	912.58
Turbidity(NTU)	3.21

Date	Time	Water Level	Water Elevation	Notes
10/8/2024	8:22	20.6	943.98	

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		3.21
Appendix I	Metals	150	150		3.21
Appendix I	VOC	240	240		3.21
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

`	964.58	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	53.67	Before purging	10/8/2024	8:22	20.60	943.98		0.0	
		After purging				964.58			
		Top of Screen				920.91			
						43.67	feet above (+) or below (-) top screen		
		Bottom of Well				910.91			
		Bottom of Well	10/8/2024		53.60	910.98			
						0.07	feet sedimentation		
		Before Sampling				964.58			
		Recovery				964.58			
		Recovery				964.58			
		Recovery				964.58			
		Recovery				964.58			

IDNR Form 542-1322

Monitoring Well: MW 20 (dg)

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

GENERAL INFORMATION

TOC	977.6
Well Depth	18.10
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	977.6
Well Depth	18.10
Top Screen	969.50
Bottom Screen	959.50
Bottom Well	959.50
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	13.00
Top sample	964.60
Bottom sample	960.60
Turbidity(NTU)	2.40

Date	Time	Water Level	Water Elevation	Notes
10/8/2024	8:57	8.76	968.84	

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		2.40
Appendix I	Metals	150	150		2.40
Appendix I	VOC	240	240		2.40
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

TOC	977.6	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	18.10	Before purging	10/8/2024	8:57	8.76	968.84		0.0	
		After purging				977.60			
		Top of Screen				969.50			
						8.10	feet above (+) or below (-) top screen		
		Bottom of Well				959.50			
		Bottom of Well	10/8/2024		18.00	959.60			
						0.10	feet sedimentation		
		Before Sampling				977.60			
		Recovery				977.60			
		Recovery				977.60			
		Recovery				977.60			
		Recovery				977.60			

IDNR Form 542-1322

Monitoring Well: MW 22 (dg)

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

GENERAL INFORMATION

TOC	950.92
Well Depth	19.50
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	950.92
Well Depth	19.50
Top Screen	941.42
Bottom Screen	931.42
Bottom Well	931.42
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.00
Top sample	936.92
Bottom sample	932.92
Turbidity(NTU)	2.83

Date	Time	Water Level	Water Elevation	Notes
10/8/2024	7:59	11.75	939.17	

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		2.83
Appendix I	Metals	150	150		2.83
Appendix I	VOC	240	240		2.83
Full Appendix II	10 more containers	5620			
TSS	TSS	1000			
Supplemental	BEHP	1 - qt			
Supplemental					
Total			400	0	

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

TOC	950.92	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.50	Before purging	10/8/2024	7:59	11.75	939.17		0.0	
		After purging				950.92			
		Top of Screen				941.42			
						9.50	feet above (+) or below (-) top screen		
		Bottom of Well				931.42			
		Bottom of Well	10/8/2024		19.4	931.52			
						0.10	feet sedimentation		
		Before Sampling				950.92			
		Recovery				950.92			
		Recovery				950.92			
		Recovery				950.92			
		Recovery				950.92			

10/8/2024

Well	Top PVC Elevation	Depth to water (ft)	Water Elevation
MW 4	1011.36	17.18	994.18
MW 18	999.46	15.18	984.28
MW 19	988.53	28.03	960.5
MW 21	943.1	11.17	931.93

Leachate Piezometer	Top PVC Elevation	Depth to Leachate (ft)	Leachate Elevation	Depth to Bottom (ft)
LPZ-6	980.57	18.11	962.46	27.3

Appendix B

Statistical Reports

Appendix B.1 – Spring Statistical Evaluation Report

GROUND WATER STATISTICS

FOR THE

JONES COUNTY SANITARY LANDFILL

First Semi-Annual Monitoring Event in 2024

Prepared for:
Jones County Solid Waste Management
13859 Edinburgh Road
Anamosa, IA 52205

Prepared by:
Jeffrey A. Holmgren
Otter Creek Environmental Services, LLC
40W565 Foxwick Court
Elgin, IL 60124
(847) 464-1355

June 2024

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 2024 at the Jones County Sanitary Landfill in Anamosa, 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 Jones County Sanitary 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 Jones County Landfill includes upgradient well MW-12 and downgradient detection sample points MW-11, MW-15, MW-16, MW-20, MW-22, and MW-6. 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	*trans*-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	*cis*-1,2-Dichloroethene	1,1,2,2-Tetrachloroethane
Bromoform	*trans*-1,2-Dichloroethene	Tetrachloroethene
Carbon disulfide	1,2-Dichloropropane	Toluene
Carbon tetrachloride	*cis*-1,3-Dichloropropene	1,1,1-Trichloroethane
Chlorobenzene	*trans*-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 2024 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 Jones County Sanitary 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 eight samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit. As an alternative to nonparametric prediction limits, Poisson prediction limits can be used for small data sets where the detection frequency is less than 25%.

Results of the Interwell Statistics

The background data used in this statistical analysis includes the ground water data collected from ground water well MW-12 during the period from 2015 through the current data. A summary of the background data from monitoring well MW-12 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-11, MW-15, MW-16, MW-20, MW-22, and MW-6, 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 2024

Well	Trace Metal	Result	Prediction Limit	Prediction Limit Type	Verified or Awaiting Verification
MW-15	Arsenic, µg/L	151	4.0000	Nonparametric	Verified
	Barium, µg/L	800	317.3349	Normal	Verified
	Cobalt, µg/L	14.1	2.6000	Nonparametric	Verified
	Nickel, µg/L	58.3	13.4000	Nonparametric	Verified
MW-16	Zinc, µg/L	32.4	27.2000	Nonparametric	Awaiting Verification

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. Table 8 is a historical summary of the data at those wells that have indicated an exceedance. 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 9% and the test becomes sensitive to 3 standard deviation unit increases over background.

The verified exceedances were evaluated against the ground water protection standards (GWPS) using confidence limits. 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-15 (131.036 µg/L) exceeds the USEPA MCL of 10 µg/L. The 95% LCL for cobalt at MW-15 (11.831 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L. The calculated LCLs for the remainder of the verified trace metals are below 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 Jones County Sanitary Landfill during the first semi-annual monitoring event in 2024 are summarized below. Historical VOC detections are summarized in Attachment C.

Organic compounds detected during the first semi-annual monitoring event in 2024

Well	VOC Detected	Result, µg/L	Reporting Limit, µg/L	Verified/ Awaiting Verification	Groundwater Standard, µg/L
MW-15	1,1-Dichloroethene	1.0	1	Awaiting Verification	7[a]
	1,4-Dichlorobenzene	2.1	1	Verified	75[a]
	Benzene	4.0	1	Verified	5[a]
	Chlorobenzene	6.1	1	Verified	100[a]
	Chloroethane	4.4	1	Verified	2,800[b]
MW-6	Bis(2-ethylhexyl)phthalate	32.0	6	Awaiting Verification	6[a]
LPZ-6	1,4-Dichlorobenzene	9.2	1	Verified	75[a]
	2-Hexanone	50.8	5	Awaiting Verification	na
	Benzene	17.7	1	Awaiting Verification	5[a]
	Chlorobenzene	1.7	1	Awaiting Verification	100[a]
	Chloroethane	1.3	1	Verified	2,800[b]
	Ethylbenzene	7.6	1	Awaiting Verification	700[a]
	Styrene	1.5	1	Awaiting Verification	100[a]
	Toluene	1.0	1	Awaiting Verification	1000[a]
	Xylenes	95.0	2	Verified	10,000[a]

a - USEPA MCL
b – Iowa Statewide Standard

The verified VOC detections were evaluated against the GWPS using confidence limits (Attachment D). The calculated 95% LCLs of the verified VOCs are below GWPS.

CONCLUSIONS

This report summarizes the statistical analyses used to evaluate the ground water data obtained during the first semi-annual monitoring event in 2024 at Jones County Sanitary Landfill. The ground water data obtained during the first semi-annual monitoring event in 2024 was compared to background using prediction limits (interwell). For the most current data, there are verified site prediction limit exceedances detected for arsenic, barium, cobalt, and nickel at MW-15.

The VOCs were compared to MCLs or PQLs, in lieu of statistical comparisons to historical concentrations. There are verified detections of 1,4-dichlorobenzene, benzene, chlorobenzene, and chloroethane at MW-15 and 1,4-dichlorobenzene, chloroethane, and xylenes at LPZ-6.

Attachment A

Summary of the Data obtained during the First Semi-Annual Monitoring Event in 2024

Table 1

Analytical Data Summary for 4/8/2024

Constituents	Units	LPZ-6	MW-11	MW-12	MW-15	MW-16	MW-20	MW-22	MW-6
(3 4)-methylphenol	ug/L								<8
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	1	<1	<1	<1	<1
1,1-dichloropropene	ug/L								<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L								<8
1,2,4-trichlorobenzene	ug/L								<1
1,2-dibromo-3-chloropropane	ug/L	<5	<5	<5	<5	<5	<5	<5	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L								<8
1,3,5-trinitrobenzene	ug/L								<8
1,3-dichlorobenzene	ug/L								<1
1,3-dichloropropane	ug/L								<1
1,3-dinitrobenzene	ug/L								<8
1,4-dichlorobenzene	ug/L	9.2	<1.0	<1.0	2.1	<1.0	<1.0	<1.0	<1.0
1,4-naphthoquinone	ug/L								<8
1,4-phenylenediamine	ug/L								<8
1-naphthylamine	ug/L								<8
2,2-dichloropropane	ug/L								<1
2,3,4,6-tetrachlorophenol	ug/L								<8
2,4,5-t	ug/L								<.5
2,4,5-tp (silvex)	ug/L								<.5
2,4,5-trichlorophenol	ug/L								<8
2,4,6-trichlorophenol	ug/L								<8
2,4-d	ug/L								<2
2,4-dichlorophenol	ug/L								<8
2,4-dimethylphenol	ug/L								<8 *
2,4-dinitrophenol	ug/L								<8
2,4-dinitrotoluene	ug/L								<8
2,6-dichlorophenol	ug/L								<8
2,6-dinitrotoluene	ug/L								<8
2-acetylaminofluorene	ug/L								<8
2-butanone (mek)	ug/L	<10	<10	<10	<10	<10	<10	<10	<5
2-chloronaphthalene	ug/L								<8
2-chlorophenol	ug/L								<8
2-hexanone (mbk)	ug/L	50.8	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-methylnaphthalene	ug/L								<8
2-naphthylamine	ug/L								<8
2-nitroaniline	ug/L								<8
2-nitrophenol	ug/L								<8
3,3´-dichlorobenzidine	ug/L								<8
3,3'-dimethylbenzidine	ug/L								<8
3-methylcholanthrene	ug/L								<8
3-nitroaniline	ug/L								<8
4,4´-ddd	ug/L								<.05
4,4´-dde	ug/L								<.05
4,4´-ddt	ug/L								<.05
4,6-dinitro-2-methylphenol	ug/L								<8
4-aminobiphenyl	ug/L								<8
4-bromophenyl phenyl ether	ug/L								<8
4-chloro-3-methylphenol	ug/L								<8
4-chloroaniline	ug/L								<8
4-chlorophenyl phenyl ether	ug/L								<8
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline	ug/L								<8
4-nitrophenol	ug/L								<8
5-nitro-o-toluidine	ug/L								<8
7,12-dimethylbenz(a)anthracene	ug/L								<8
Acenaphthene	ug/L								<8
Acenaphthylene	ug/L								<8
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile	ug/L								<10
Acetophenone	ug/L								<8
Acrolein	ug/L								<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L								<.05
Alkalinity, as caco3	mg/L	562			397				
Allyl chloride	ug/L								<1
Alpha-bhc	ug/L								<.05
Anthracene	ug/L								<8

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

Table 1

Analytical Data Summary for 4/8/2024

Constituents	Units	LPZ-6	MW-11	MW-12	MW-15	MW-16	MW-20	MW-22	MW-6
Antimony, total	ug/L		<2	<2	<2	<2	<2	<2	<2
Arochlor 1016	ug/L								<.2
Arochlor 1221	ug/L								<.2
Arochlor 1232	ug/L								<.2
Arochlor 1242	ug/L								<.2
Arochlor 1248	ug/L								<.2
Arochlor 1254	ug/L								<.2
Arochlor 1260	ug/L								<.2
Arsenic, total	ug/L	20.7	<4.0	<4.0	151.0	<4.0	<4.0	<4.0	<4.0
Azobenzene	ug/L								<8
Barium, total	ug/L		286.0	247.0	800.0	84.3	144.0	134.0	171.0
Benzene	ug/L	17.7	<1.0	<1.0	4.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene	ug/L								<8
Benzo(a)pyrene	ug/L								<8
Benzo(b)fluoranthene	ug/L								<8
Benzo(g,h,i)perylene	ug/L								<8
Benzo(k)fluoranthene	ug/L								<8
Benzyl alcohol	ug/L								<8
Beryllium, total	ug/L		<4	<4	<4	<4	<4	<4	<4
Beta-bhc	ug/L								<.05
Bis (2-chloroethoxy) methane	ug/L								<8
Bis(2-chloroethyl) ether	ug/L								<8
Bis(2-chloroisopropyl) ether	ug/L								<8
Bis(2-ethylhexyl) phthalate	ug/L								32
BOD (5 day)	mg/L	22							
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate	ug/L								<8
Cadmium, total	ug/L		<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chemical oxygen demand	mg/L	156							
Chlordane	ug/L								<.1
Chloride	mg/L	169							
Chlorobenzene	ug/L	1.7	<1.0	<1.0	6.1	<1.0	<1.0	<1.0	<1.0
Chlorobenzilate	ug/L								<8
Chloroethane	ug/L	1.3	<1.0	<1.0	4.4	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene	ug/L								<1
Chromium, total	ug/L		<8	<8	<8	<8	<8	<8	<8
Chrysene	ug/L								<8
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	6.8	<.4	<.4	14.1	<.4	<.4	<.4	<.4
Copper, total	ug/L		<4	<4	<4	<4	<4	<4	<4
Cyanide, total	mg/L								<.005
Delta-bhc	ug/L								<.05
Diallate	ug/L								<8
Dibenzo(a,h)anthracene	ug/L								<8
Dibenzofuran	ug/L								<8
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L								<1
Dieldrin	ug/L								<.05
Diethyl phthalate	ug/L								<8
Dimethoate	ug/L								<.4
Dimethylphthalate	ug/L								<8
Di-n-butyl phthalate	ug/L								<8
Di-n-octyl phthalate	ug/L								<8
Dinoseb	ug/L								<.5
Diphenylamine	ug/L								<8
Disulfoton	ug/L								<.4
Endosulfan i	ug/L								<.05
Endosulfan ii	ug/L								<.05
Endosulfan sulfate	ug/L								<.05
Endrin	ug/L								<.05
Endrin aldehyde	ug/L								<.05
Ethyl methacrylate	ug/L								<10
Ethyl methanesulfonate	ug/L								<8
Ethylbenzene	ug/L	7.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Famphur	ug/L								<.4
Fluoranthene	ug/L								<8
Fluorene	ug/L								<8
Gamma-bhc (lindane)	ug/L								<.05

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

Table 1

Analytical Data Summary for 4/8/2024

Constituents	Units	LPZ-6	MW-11	MW-12	MW-15	MW-16	MW-20	MW-22	MW-6
Heptachlor	ug/L								<.05
Heptachlor epoxide	ug/L								<.05
Hexachlorobenzene	ug/L								<.05
Hexachlorobutadiene	ug/L								<8
Hexachlorocyclopentadiene	ug/L								<8
Hexachloroethane	ug/L								<8
Hexachloropropene	ug/L								<8
Indeno(1,2,3-cd)pyrene	ug/L								<8
Isobutanol	mg/L								<1
Isodrin	ug/L								<8
Isophorone	ug/L								<8
Isosafrole	ug/L								<8
Kepone	ug/L								<8
Lead, total	ug/L		<4	<4	<4	<4	<4	<4	<4
Mercury, total	ug/L								<.5
Methacrylonitrile	ug/L								<1
Methapyrilene	ug/L								<8
Methoxychlor	ug/L								<.05
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<2
Methyl methacrylate	ug/L								<1
Methyl methanesulfonate	ug/L								<8
Methyl parathion	ug/L								<.4
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	ug/L								<8
Nickel, total	ug/L		<4.0	<4.0	58.3	<4.0	<4.0	<4.0	<4.0
Nitrobenzene	ug/L								<8
Nitrogen, ammonia	mg/L	13.3							
N-nitrosodiethylamine	ug/L								<8
N-nitrosodimethylamine	ug/L								<8
N-nitrosodi-n-butylamine	ug/L								<8
N-nitroso-di-n-propylamine	ug/L								<8
N-nitrosodiphenylamine	ug/L								<8
N-nitrosomethylethylamine	ug/L								<8
N-nitrosopiperidine	ug/L								<8
N-nitrosopyrrolidine	ug/L								<8
O,o,o-triethyl phosphorothioate	ug/L								<.4
O-toluidine	ug/L								<8
Parathion	ug/L								<.4
P-dimethylaminoazobenzene	ug/L								<8
Pentachlorobenzene	ug/L								<8
Pentachloronitrobenzene (pcnb)	ug/L								<8
Pentachlorophenol	ug/L								<8
pH	pH	6.5			6.6				
Phenacetin	ug/L								<8
Phenanthrene	ug/L								<8
Phenol	ug/L								<8
Phorate	ug/L								<.4
Pronamide	ug/L								<8
Propionitrile	ug/L								<10
Pyrene	ug/L								<8
Safrole	ug/L								<8
Selenium, total	ug/L		<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L		<4	<4	<4	<4	<4	<4	<4
Solids, total dissolved	mg/L	908							
Solids, total suspended	mg/L	104							
Styrene	ug/L	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Sulfate	mg/L	20.3							
Sulfide, total	mg/L								<.3
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L		<2	<2	<2	<2	<2	<2	<2
Thionazin	ug/L								<.4
Tin, total	ug/L								<20
Toluene	ug/L	1	<1	<1	<1	<1	<1	<1	<1
Toxaphene	ug/L								<.2
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L		<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	95	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L		<20.0	<20.0	<20.0	32.4	<20.0	<20.0	<20.0

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

Attachment B

Summary Tables and Graphs for the Interwell Comparisons

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, total	ug/L	MW-12	04/20/2015	ND	2.0000		
Antimony, total	ug/L	MW-12	07/09/2015	ND	2.0000		
Antimony, total	ug/L	MW-12	10/05/2015	ND	2.0000		
Antimony, total	ug/L	MW-12	04/05/2016	ND	2.0000		
Antimony, total	ug/L	MW-12	10/05/2016	ND	2.0000		
Antimony, total	ug/L	MW-12	04/04/2017	ND	2.0000		
Antimony, total	ug/L	MW-12	10/03/2017	ND	2.0000		
Antimony, total	ug/L	MW-12	04/10/2018	ND	2.0000		
Antimony, total	ug/L	MW-12	10/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-12	04/16/2019		3.5000		
Antimony, total	ug/L	MW-12	09/30/2019	ND	2.0000		
Antimony, total	ug/L	MW-12	04/07/2020	ND	2.0000		
Antimony, total	ug/L	MW-12	10/07/2020	ND	2.0000		
Antimony, total	ug/L	MW-12	04/22/2021	ND	2.0000		
Antimony, total	ug/L	MW-12	10/05/2021	ND	2.0000		
Antimony, total	ug/L	MW-12	04/04/2022	ND	2.0000		
Antimony, total	ug/L	MW-12	10/05/2022	ND	2.0000		
Antimony, total	ug/L	MW-12	04/14/2023	ND	2.0000		
Antimony, total	ug/L	MW-12	10/18/2023	ND	2.0000		
Antimony, total	ug/L	MW-12	04/08/2024	ND	2.0000		
Arsenic, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Arsenic, total	ug/L	MW-12	07/09/2015	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/10/2018	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/12/2018	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Arsenic, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/07/2020	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/04/2022	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/05/2022	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Barium, total	ug/L	MW-12	04/20/2015		264.0000		
Barium, total	ug/L	MW-12	07/09/2015		269.0000		
Barium, total	ug/L	MW-12	10/05/2015		293.0000		
Barium, total	ug/L	MW-12	04/05/2016		306.0000		
Barium, total	ug/L	MW-12	10/05/2016		274.0000		
Barium, total	ug/L	MW-12	04/04/2017		279.0000		
Barium, total	ug/L	MW-12	10/03/2017		268.0000		
Barium, total	ug/L	MW-12	04/10/2018		273.0000		
Barium, total	ug/L	MW-12	10/12/2018		243.0000		
Barium, total	ug/L	MW-12	04/16/2019		261.0000		
Barium, total	ug/L	MW-12	09/30/2019		253.0000		
Barium, total	ug/L	MW-12	04/07/2020		276.0000		
Barium, total	ug/L	MW-12	10/07/2020		256.0000		
Barium, total	ug/L	MW-12	04/22/2021		252.0000		
Barium, total	ug/L	MW-12	10/05/2021		216.0000		
Barium, total	ug/L	MW-12	04/04/2022		254.0000		
Barium, total	ug/L	MW-12	10/05/2022		219.0000		
Barium, total	ug/L	MW-12	04/14/2023		232.0000		
Barium, total	ug/L	MW-12	10/18/2023		255.0000		
Barium, total	ug/L	MW-12	04/08/2024		247.0000		
Beryllium, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Beryllium, total	ug/L	MW-12	07/09/2015	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/10/2018	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Beryllium, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/07/2020	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/22/2021	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	
Beryllium, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/04/2022	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/05/2022	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Cadmium, total	ug/L	MW-12	04/20/2015	ND	0.8000		
Cadmium, total	ug/L	MW-12	07/09/2015	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/05/2015	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/05/2016	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/05/2016	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/04/2017	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/03/2017	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/10/2018	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/16/2019	ND	0.8000		
Cadmium, total	ug/L	MW-12	09/30/2019	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/07/2020	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/07/2020	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/22/2021	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/05/2021	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/04/2022	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/05/2022	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/14/2023	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/18/2023	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/08/2024	ND	0.8000		
Chromium, total	ug/L	MW-12	04/20/2015	ND	8.0000		
Chromium, total	ug/L	MW-12	07/09/2015	ND	8.0000		
Chromium, total	ug/L	MW-12	10/05/2015	ND	8.0000		
Chromium, total	ug/L	MW-12	04/05/2016	ND	8.0000		
Chromium, total	ug/L	MW-12	10/05/2016	ND	8.0000		
Chromium, total	ug/L	MW-12	04/04/2017	ND	8.0000		
Chromium, total	ug/L	MW-12	10/03/2017	ND	8.0000		
Chromium, total	ug/L	MW-12	04/10/2018	ND	8.0000		
Chromium, total	ug/L	MW-12	10/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-12	04/16/2019	ND	8.0000		
Chromium, total	ug/L	MW-12	09/30/2019	ND	8.0000		
Chromium, total	ug/L	MW-12	04/07/2020	ND	8.0000		
Chromium, total	ug/L	MW-12	10/07/2020	ND	8.0000		
Chromium, total	ug/L	MW-12	04/22/2021	ND	8.0000		
Chromium, total	ug/L	MW-12	10/05/2021	ND	8.0000		
Chromium, total	ug/L	MW-12	04/04/2022	ND	8.0000		
Chromium, total	ug/L	MW-12	10/05/2022	ND	8.0000		
Chromium, total	ug/L	MW-12	04/14/2023	ND	8.0000		
Chromium, total	ug/L	MW-12	10/18/2023	ND	8.0000		
Chromium, total	ug/L	MW-12	04/08/2024	ND	8.0000		
Cobalt, total	ug/L	MW-12	04/20/2015	ND	0.8000		
Cobalt, total	ug/L	MW-12	07/09/2015	ND	0.8000		
Cobalt, total	ug/L	MW-12	10/05/2015	ND	0.8000		
Cobalt, total	ug/L	MW-12	04/05/2016	ND	0.8000		
Cobalt, total	ug/L	MW-12	10/05/2016	ND	0.8000		
Cobalt, total	ug/L	MW-12	04/04/2017	ND	0.8000		
Cobalt, total	ug/L	MW-12	10/03/2017	ND	0.8000		
Cobalt, total	ug/L	MW-12	04/10/2018	ND	0.8000		
Cobalt, total	ug/L	MW-12	10/12/2018	ND	0.8000		
Cobalt, total	ug/L	MW-12	04/16/2019	ND	0.8000		
Cobalt, total	ug/L	MW-12	09/30/2019	ND	0.8000		
Cobalt, total	ug/L	MW-12	04/07/2020	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	10/07/2020	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	04/22/2021	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	10/05/2021	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	04/04/2022	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	10/05/2022		2.6000		
Cobalt, total	ug/L	MW-12	04/14/2023	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	10/18/2023	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	04/08/2024	ND	0.4000	0.8000	***
Copper, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Copper, total	ug/L	MW-12	07/09/2015	ND	4.0000		
Copper, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Copper, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Copper, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Copper, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Copper, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Copper, total	ug/L	MW-12	04/10/2018	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	
Copper, total	ug/L	MW-12	10/12/2018	ND	4.0000		
Copper, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Copper, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Copper, total	ug/L	MW-12	04/07/2020	ND	4.0000		
Copper, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Copper, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Copper, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Copper, total	ug/L	MW-12	04/04/2022	ND	4.0000		
Copper, total	ug/L	MW-12	10/05/2022	ND	4.0000		
Copper, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Copper, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Copper, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Lead, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Lead, total	ug/L	MW-12	07/09/2015	ND	4.0000		
Lead, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Lead, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Lead, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Lead, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Lead, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Lead, total	ug/L	MW-12	04/10/2018	ND	4.0000		
Lead, total	ug/L	MW-12	10/12/2018	ND	4.0000		
Lead, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Lead, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Lead, total	ug/L	MW-12	04/07/2020	ND	4.0000		
Lead, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Lead, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Lead, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Lead, total	ug/L	MW-12	04/04/2022	ND	4.0000		
Lead, total	ug/L	MW-12	10/05/2022	ND	4.0000		
Lead, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Lead, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Lead, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Nickel, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Nickel, total	ug/L	MW-12	07/09/2015	ND	4.0000		
Nickel, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Nickel, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Nickel, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Nickel, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Nickel, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Nickel, total	ug/L	MW-12	04/10/2018		13.4000		
Nickel, total	ug/L	MW-12	10/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Nickel, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Nickel, total	ug/L	MW-12	04/07/2020	ND	4.0000		
Nickel, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Nickel, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Nickel, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Nickel, total	ug/L	MW-12	04/04/2022		10.4000		
Nickel, total	ug/L	MW-12	10/05/2022		6.2000		
Nickel, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Nickel, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Nickel, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Selenium, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Selenium, total	ug/L	MW-12	07/09/2015	ND	4.0000		
Selenium, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Selenium, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Selenium, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Selenium, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Selenium, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Selenium, total	ug/L	MW-12	04/10/2018	ND	4.0000		
Selenium, total	ug/L	MW-12	10/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Selenium, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Selenium, total	ug/L	MW-12	04/07/2020	ND	4.0000		
Selenium, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Selenium, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Selenium, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Selenium, total	ug/L	MW-12	04/04/2022	ND	4.0000		
Selenium, total	ug/L	MW-12	10/05/2022	ND	4.0000		
Selenium, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Selenium, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Selenium, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Silver, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Silver, total	ug/L	MW-12	07/09/2015	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-12	10/05/2015	ND	4.0000		
Silver, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Silver, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Silver, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Silver, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Silver, total	ug/L	MW-12	04/10/2018	ND	4.0000		
Silver, total	ug/L	MW-12	10/12/2018	ND	8.0000	4.0000	**
Silver, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Silver, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Silver, total	ug/L	MW-12	04/07/2020	ND	4.0000		
Silver, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Silver, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Silver, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Silver, total	ug/L	MW-12	04/04/2022	ND	4.0000		
Silver, total	ug/L	MW-12	10/05/2022	ND	4.0000		
Silver, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Silver, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Silver, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Thallium, total	ug/L	MW-12	04/20/2015	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	07/09/2015	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/05/2015	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/05/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/05/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/04/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/03/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/10/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/16/2019	ND	2.0000		
Thallium, total	ug/L	MW-12	09/30/2019	ND	2.0000		
Thallium, total	ug/L	MW-12	04/07/2020	ND	2.0000		
Thallium, total	ug/L	MW-12	10/07/2020	ND	2.0000		
Thallium, total	ug/L	MW-12	04/22/2021	ND	2.0000		
Thallium, total	ug/L	MW-12	10/05/2021	ND	2.0000		
Thallium, total	ug/L	MW-12	04/04/2022	ND	2.0000		
Thallium, total	ug/L	MW-12	10/05/2022	ND	2.0000		
Thallium, total	ug/L	MW-12	04/14/2023	ND	2.0000		
Thallium, total	ug/L	MW-12	10/18/2023	ND	2.0000		
Thallium, total	ug/L	MW-12	04/08/2024	ND	2.0000		
Vanadium, total	ug/L	MW-12	04/20/2015	ND	20.0000		
Vanadium, total	ug/L	MW-12	07/09/2015	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/05/2015	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/05/2016	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/05/2016	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/04/2017	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/03/2017	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/10/2018	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/16/2019	ND	20.0000		
Vanadium, total	ug/L	MW-12	09/30/2019	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/07/2020	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/07/2020	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/22/2021	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/05/2021	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/04/2022	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/05/2022	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/14/2023	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/18/2023	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/08/2024	ND	20.0000		
Zinc, total	ug/L	MW-12	04/20/2015	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	07/09/2015		18.1000		
Zinc, total	ug/L	MW-12	10/05/2015		10.1000		
Zinc, total	ug/L	MW-12	04/05/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	10/05/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	04/04/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	10/03/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	04/10/2018		27.2000		
Zinc, total	ug/L	MW-12	10/12/2018	ND	20.0000		
Zinc, total	ug/L	MW-12	04/16/2019	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	09/30/2019		10.9000		
Zinc, total	ug/L	MW-12	04/07/2020	ND	20.0000		
Zinc, total	ug/L	MW-12	10/07/2020	ND	20.0000		
Zinc, total	ug/L	MW-12	04/22/2021	ND	20.0000		
Zinc, total	ug/L	MW-12	10/05/2021	ND	20.0000		
Zinc, total	ug/L	MW-12	04/04/2022		24.2000		

* - 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	
Zinc, total	ug/L	MW-12	10/05/2022	ND	20.0000		
Zinc, total	ug/L	MW-12	04/14/2023	ND	20.0000		
Zinc, total	ug/L	MW-12	10/18/2023		21.8000		
Zinc, total	ug/L	MW-12	04/08/2024	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 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, total	ug/L	MW-11	04/08/2024	ND	2.0000		3.5000
Arsenic, total	ug/L	MW-11	04/08/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-11	04/08/2024		286.0000		317.3349
Beryllium, total	ug/L	MW-11	04/08/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-11	04/08/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-11	04/08/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-11	04/08/2024	ND	0.4000		2.6000
Copper, total	ug/L	MW-11	04/08/2024	ND	4.0000		4.0000
Lead, total	ug/L	MW-11	04/08/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-11	04/08/2024	ND	4.0000		13.4000
Selenium, total	ug/L	MW-11	04/08/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-11	04/08/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-11	04/08/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-11	04/08/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-11	04/08/2024	ND	20.0000		27.2000
Antimony, total	ug/L	MW-15	04/08/2024	ND	2.0000		3.5000
Arsenic, total	ug/L	MW-15	04/08/2024		151.0000	***	4.0000
Barium, total	ug/L	MW-15	04/08/2024		800.0000	***	317.3349
Beryllium, total	ug/L	MW-15	04/08/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-15	04/08/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-15	04/08/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-15	04/08/2024		14.1000	***	2.6000
Copper, total	ug/L	MW-15	04/08/2024	ND	4.0000		4.0000
Lead, total	ug/L	MW-15	04/08/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-15	04/08/2024		58.3000	***	13.4000
Selenium, total	ug/L	MW-15	04/08/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-15	04/08/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-15	04/08/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-15	04/08/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-15	04/08/2024	ND	20.0000		27.2000
Antimony, total	ug/L	MW-16	04/08/2024	ND	2.0000		3.5000
Arsenic, total	ug/L	MW-16	04/08/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-16	04/08/2024		84.3000		317.3349
Beryllium, total	ug/L	MW-16	04/08/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-16	04/08/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-16	04/08/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-16	04/08/2024	ND	0.4000		2.6000
Copper, total	ug/L	MW-16	04/08/2024	ND	4.0000		4.0000
Lead, total	ug/L	MW-16	04/08/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-16	04/08/2024	ND	4.0000		13.4000
Selenium, total	ug/L	MW-16	04/08/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-16	04/08/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-16	04/08/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-16	04/08/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-16	04/08/2024		32.4000	*	27.2000
Antimony, total	ug/L	MW-20	04/08/2024	ND	2.0000		3.5000
Arsenic, total	ug/L	MW-20	04/08/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-20	04/08/2024		144.0000		317.3349
Beryllium, total	ug/L	MW-20	04/08/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-20	04/08/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-20	04/08/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-20	04/08/2024	ND	0.4000		2.6000
Copper, total	ug/L	MW-20	04/08/2024	ND	4.0000		4.0000
Lead, total	ug/L	MW-20	04/08/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-20	04/08/2024	ND	4.0000		13.4000
Selenium, total	ug/L	MW-20	04/08/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-20	04/08/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-20	04/08/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-20	04/08/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-20	04/08/2024	ND	20.0000		27.2000
Antimony, total	ug/L	MW-22	04/08/2024	ND	2.0000		3.5000
Arsenic, total	ug/L	MW-22	04/08/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-22	04/08/2024		134.0000		317.3349
Beryllium, total	ug/L	MW-22	04/08/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-22	04/08/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-22	04/08/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-22	04/08/2024	ND	0.4000		2.6000
Copper, total	ug/L	MW-22	04/08/2024	ND	4.0000		4.0000
Lead, total	ug/L	MW-22	04/08/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-22	04/08/2024	ND	4.0000		13.4000
Selenium, total	ug/L	MW-22	04/08/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-22	04/08/2024	ND	4.0000		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-22	04/08/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-22	04/08/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-22	04/08/2024	ND	20.0000		27.2000
Antimony, total	ug/L	MW-6	04/08/2024	ND	2.0000		3.5000
Arsenic, total	ug/L	MW-6	04/08/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-6	04/08/2024		171.0000	**	317.3349
Beryllium, total	ug/L	MW-6	04/08/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-6	04/08/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-6	04/08/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-6	04/08/2024	ND	0.4000		2.6000
Copper, total	ug/L	MW-6	04/08/2024	ND	4.0000	**	4.0000
Lead, total	ug/L	MW-6	04/08/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-6	04/08/2024	ND	4.0000		13.4000
Selenium, total	ug/L	MW-6	04/08/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-6	04/08/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-6	04/08/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-6	04/08/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-6	04/08/2024	ND	20.0000		27.2000

* - 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	1	20	0.050	0	142	0.000
Arsenic, total	0	20	0.000	45	167	0.269
Barium, total	20	20	1.000	184	184	1.000
Beryllium, total	0	20	0.000	0	142	0.000
Cadmium, total	0	20	0.000	23	172	0.134
Chromium, total	0	20	0.000	22	163	0.135
Cobalt, total	1	20	0.050	82	200	0.410
Copper, total	0	20	0.000	63	182	0.346
Lead, total	0	20	0.000	35	173	0.202
Nickel, total	3	20	0.150	105	183	0.574
Selenium, total	0	20	0.000	14	162	0.086
Silver, total	0	20	0.000	0	142	0.000
Thallium, total	0	20	0.000	0	142	0.000
Vanadium, total	0	20	0.000	23	171	0.135
Zinc, total	6	20	0.300	81	184	0.440

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	1	20	0.050									nonpar
Arsenic, total	0	20	0.000									nonpar
Barium, total	20	20	1.000	0.987	0.476					2.326	normal	normal
Beryllium, total	0	20	0.000									nonpar
Cadmium, total	0	20	0.000									nonpar
Chromium, total	0	20	0.000									nonpar
Cobalt, total	1	20	0.050									nonpar
Copper, total	0	20	0.000									nonpar
Lead, total	0	20	0.000									nonpar
Nickel, total	3	20	0.150	0.903	0.321					2.326	normal	nonpar
Selenium, total	0	20	0.000									nonpar
Silver, total	0	20	0.000									nonpar
Thallium, total	0	20	0.000									nonpar
Vanadium, total	0	20	0.000									nonpar
Zinc, total	6	20	0.300	0.057	0.645					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	1	20					3.5000	nonpar		0.98
Arsenic, total	ug/L	0	20					4.0000	nonpar	***	0.98
Barium, total	ug/L	20	20	259.5000	22.2344	0.0100	2.6011	317.3349	normal		
Beryllium, total	ug/L	0	20					4.0000	nonpar	***	0.98
Cadmium, total	ug/L	0	20					0.8000	nonpar	***	0.98
Chromium, total	ug/L	0	20					8.0000	nonpar	***	0.98
Cobalt, total	ug/L	1	20					2.6000	nonpar		0.98
Copper, total	ug/L	0	20					4.0000	nonpar	***	0.98
Lead, total	ug/L	0	20					4.0000	nonpar	***	0.98
Nickel, total	ug/L	3	20					13.4000	nonpar		0.98
Selenium, total	ug/L	0	20					4.0000	nonpar	***	0.98
Silver, total	ug/L	0	20					4.0000	nonpar	***	0.98
Thallium, total	ug/L	0	20					2.0000	nonpar	***	0.98
Vanadium, total	ug/L	0	20					20.0000	nonpar	***	0.98
Zinc, total	ug/L	6	20					27.2000	nonpar		0.98

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

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
Arsenic, total	ug/L	MW-15	03/06/2009		87.6000	*	4.0000
Arsenic, total	ug/L	MW-15	06/16/2009	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-15	07/13/2009		151.0000	*	4.0000
Arsenic, total	ug/L	MW-15	08/31/2009		54.6000	*	4.0000
Arsenic, total	ug/L	MW-15	10/20/2009		184.0000	*	4.0000
Arsenic, total	ug/L	MW-15	03/15/2010		78.4000	*	4.0000
Arsenic, total	ug/L	MW-15	06/10/2010		204.0000	*	4.0000
Arsenic, total	ug/L	MW-15	09/14/2010		209.0000	*	4.0000
Arsenic, total	ug/L	MW-15	03/11/2011		87.3000	*	4.0000
Arsenic, total	ug/L	MW-15	09/07/2011		267.0000	*	4.0000
Arsenic, total	ug/L	MW-15	03/14/2012		117.0000	*	4.0000
Arsenic, total	ug/L	MW-15	09/01/2012		282.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/01/2013		43.3000	*	4.0000
Arsenic, total	ug/L	MW-15	09/09/2013		187.0000	*	4.0000
Arsenic, total	ug/L	MW-15	03/30/2014		99.5000	*	4.0000
Arsenic, total	ug/L	MW-15	09/19/2014		21.9000	*	4.0000
Arsenic, total	ug/L	MW-15	04/20/2015		178.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/05/2015		208.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/05/2016		183.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/05/2016		153.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/04/2017		177.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/03/2017		233.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/10/2018		142.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/12/2018		128.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/16/2019		125.0000	*	4.0000
Arsenic, total	ug/L	MW-15	09/30/2019		212.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/07/2020		149.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/07/2020		168.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/22/2021		177.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/05/2021		200.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/04/2022		143.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/05/2022		250.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/14/2023		168.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/18/2023		166.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/08/2024		151.0000	*	4.0000
Barium, total	ug/L	MW-15	03/06/2009		1390.0000	*	317.3349
Barium, total	ug/L	MW-15	06/16/2009		97.7000		317.3349
Barium, total	ug/L	MW-15	07/13/2009		1260.0000	*	317.3349
Barium, total	ug/L	MW-15	08/31/2009		1060.0000	*	317.3349
Barium, total	ug/L	MW-15	10/20/2009		1440.0000	*	317.3349
Barium, total	ug/L	MW-15	03/15/2010		752.0000	*	317.3349
Barium, total	ug/L	MW-15	06/10/2010		1880.0000	*	317.3349
Barium, total	ug/L	MW-15	09/14/2010		3550.0000	*	317.3349
Barium, total	ug/L	MW-15	03/11/2011		1010.0000	*	317.3349
Barium, total	ug/L	MW-15	09/07/2011		2300.0000	*	317.3349
Barium, total	ug/L	MW-15	03/14/2012		869.0000	*	317.3349
Barium, total	ug/L	MW-15	09/01/2012		2010.0000	*	317.3349
Barium, total	ug/L	MW-15	04/01/2013		596.0000	*	317.3349
Barium, total	ug/L	MW-15	09/09/2013		988.0000	*	317.3349
Barium, total	ug/L	MW-15	03/30/2014		1120.0000	*	317.3349
Barium, total	ug/L	MW-15	09/19/2014		694.0000	*	317.3349
Barium, total	ug/L	MW-15	04/20/2015		1160.0000	*	317.3349
Barium, total	ug/L	MW-15	10/05/2015		1030.0000	*	317.3349
Barium, total	ug/L	MW-15	04/05/2016		1080.0000	*	317.3349
Barium, total	ug/L	MW-15	10/05/2016		1160.0000	*	317.3349
Barium, total	ug/L	MW-15	04/04/2017		1130.0000	*	317.3349
Barium, total	ug/L	MW-15	10/03/2017		1160.0000	*	317.3349
Barium, total	ug/L	MW-15	04/10/2018		598.0000	*	317.3349
Barium, total	ug/L	MW-15	10/12/2018		1050.0000	*	317.3349
Barium, total	ug/L	MW-15	04/16/2019		1390.0000	*	317.3349
Barium, total	ug/L	MW-15	09/30/2019		1170.0000	*	317.3349
Barium, total	ug/L	MW-15	04/07/2020		1300.0000	*	317.3349
Barium, total	ug/L	MW-15	10/07/2020		881.0000	*	317.3349
Barium, total	ug/L	MW-15	04/22/2021		868.0000	*	317.3349
Barium, total	ug/L	MW-15	10/05/2021		1180.0000	*	317.3349
Barium, total	ug/L	MW-15	04/04/2022		1000.0000	*	317.3349
Barium, total	ug/L	MW-15	10/05/2022		1170.0000	*	317.3349
Barium, total	ug/L	MW-15	04/14/2023		783.0000	*	317.3349
Barium, total	ug/L	MW-15	10/18/2023		1350.0000	*	317.3349
Barium, total	ug/L	MW-15	04/08/2024		800.0000	*	317.3349
Cobalt, total	ug/L	MW-15	04/06/2006		27.0000	*	2.6000

* - 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
Cobalt, total	ug/L	MW-15	09/07/2006		23.0000	*	2.6000
Cobalt, total	ug/L	MW-15	03/14/2007		23.0000	*	2.6000
Cobalt, total	ug/L	MW-15	09/19/2007		22.0000	*	2.6000
Cobalt, total	ug/L	MW-15	03/25/2008		21.0000	*	2.6000
Cobalt, total	ug/L	MW-15	09/05/2008		24.0000	*	2.6000
Cobalt, total	ug/L	MW-15	03/06/2009		24.7000	*	2.6000
Cobalt, total	ug/L	MW-15	06/16/2009	ND	4.0000		2.6000
Cobalt, total	ug/L	MW-15	07/13/2009		54.0000	*	2.6000
Cobalt, total	ug/L	MW-15	08/31/2009		23.6000	*	2.6000
Cobalt, total	ug/L	MW-15	10/20/2009		23.9000	*	2.6000
Cobalt, total	ug/L	MW-15	03/15/2010		23.0000	*	2.6000
Cobalt, total	ug/L	MW-15	06/10/2010		78.4000	*	2.6000
Cobalt, total	ug/L	MW-15	09/14/2010		145.3667	*	2.6000
Cobalt, total	ug/L	MW-15	03/11/2011		22.2333	*	2.6000
Cobalt, total	ug/L	MW-15	09/07/2011		65.1000	*	2.6000
Cobalt, total	ug/L	MW-15	03/14/2012		21.2000	*	2.6000
Cobalt, total	ug/L	MW-15	09/01/2012		43.8000	*	2.6000
Cobalt, total	ug/L	MW-15	04/01/2013		14.9000	*	2.6000
Cobalt, total	ug/L	MW-15	09/09/2013		22.5000	*	2.6000
Cobalt, total	ug/L	MW-15	03/30/2014		30.0000	*	2.6000
Cobalt, total	ug/L	MW-15	09/19/2014		19.4000	*	2.6000
Cobalt, total	ug/L	MW-15	04/20/2015		22.3000	*	2.6000
Cobalt, total	ug/L	MW-15	10/05/2015		24.3000	*	2.6000
Cobalt, total	ug/L	MW-15	04/05/2016		21.3000	*	2.6000
Cobalt, total	ug/L	MW-15	10/05/2016		20.1000	*	2.6000
Cobalt, total	ug/L	MW-15	04/04/2017		19.8000	*	2.6000
Cobalt, total	ug/L	MW-15	10/03/2017		22.5000	*	2.6000
Cobalt, total	ug/L	MW-15	04/10/2018		12.3000	*	2.6000
Cobalt, total	ug/L	MW-15	10/12/2018		22.0000	*	2.6000
Cobalt, total	ug/L	MW-15	04/16/2019		23.7000	*	2.6000
Cobalt, total	ug/L	MW-15	09/30/2019		24.2000	*	2.6000
Cobalt, total	ug/L	MW-15	04/07/2020		19.6000	*	2.6000
Cobalt, total	ug/L	MW-15	10/07/2020		15.0000	*	2.6000
Cobalt, total	ug/L	MW-15	04/22/2021		15.1000	*	2.6000
Cobalt, total	ug/L	MW-15	10/05/2021		20.0000	*	2.6000
Cobalt, total	ug/L	MW-15	04/04/2022		18.4000	*	2.6000
Cobalt, total	ug/L	MW-15	10/05/2022		21.2000	*	2.6000
Cobalt, total	ug/L	MW-15	04/14/2023		13.1000	*	2.6000
Cobalt, total	ug/L	MW-15	10/18/2023		15.9000	*	2.6000
Cobalt, total	ug/L	MW-15	04/08/2024		14.1000	*	2.6000
Nickel, total	ug/L	MW-15	03/06/2009		88.9000	*	13.4000
Nickel, total	ug/L	MW-15	06/16/2009		9.7000		13.4000
Nickel, total	ug/L	MW-15	07/13/2009		161.0000	*	13.4000
Nickel, total	ug/L	MW-15	08/31/2009		64.8000	*	13.4000
Nickel, total	ug/L	MW-15	10/20/2009		71.9000	*	13.4000
Nickel, total	ug/L	MW-15	03/15/2010		70.5000	*	13.4000
Nickel, total	ug/L	MW-15	06/10/2010		211.0000	*	13.4000
Nickel, total	ug/L	MW-15	09/14/2010		536.0000	*	13.4000
Nickel, total	ug/L	MW-15	03/11/2011		86.4000	*	13.4000
Nickel, total	ug/L	MW-15	09/07/2011		261.0000	*	13.4000
Nickel, total	ug/L	MW-15	03/14/2012		78.1000	*	13.4000
Nickel, total	ug/L	MW-15	09/01/2012		137.0000	*	13.4000
Nickel, total	ug/L	MW-15	04/01/2013		45.2000	*	13.4000
Nickel, total	ug/L	MW-15	09/09/2013		88.9000	*	13.4000
Nickel, total	ug/L	MW-15	03/30/2014		97.0000	*	13.4000
Nickel, total	ug/L	MW-15	09/19/2014		67.0000	*	13.4000
Nickel, total	ug/L	MW-15	04/20/2015		73.3000	*	13.4000
Nickel, total	ug/L	MW-15	10/05/2015		102.0000	*	13.4000
Nickel, total	ug/L	MW-15	04/05/2016		70.3000	*	13.4000
Nickel, total	ug/L	MW-15	10/05/2016		59.8000	*	13.4000
Nickel, total	ug/L	MW-15	04/04/2017		71.0000	*	13.4000
Nickel, total	ug/L	MW-15	10/03/2017		101.0000	*	13.4000
Nickel, total	ug/L	MW-15	04/10/2018		57.8000	*	13.4000
Nickel, total	ug/L	MW-15	10/12/2018		52.9000	*	13.4000
Nickel, total	ug/L	MW-15	04/16/2019		70.3000	*	13.4000
Nickel, total	ug/L	MW-15	09/30/2019		92.8000	*	13.4000
Nickel, total	ug/L	MW-15	04/07/2020		60.1000	*	13.4000
Nickel, total	ug/L	MW-15	10/07/2020		65.1000	*	13.4000
Nickel, total	ug/L	MW-15	04/22/2021		61.8000	*	13.4000
Nickel, total	ug/L	MW-15	10/05/2021		86.1000	*	13.4000
Nickel, total	ug/L	MW-15	04/04/2022		63.4000	*	13.4000

* - 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-15	10/05/2022		93.6000	*	13.4000
Nickel, total	ug/L	MW-15	04/14/2023		67.5000	*	13.4000
Nickel, total	ug/L	MW-15	10/18/2023		72.1000	*	13.4000
Nickel, total	ug/L	MW-15	04/08/2024		58.3000	*	13.4000
Zinc, total	ug/L	MW-16	09/01/2012	ND	8.0000		27.2000
Zinc, total	ug/L	MW-16	04/01/2013	ND	8.0000		27.2000
Zinc, total	ug/L	MW-16	09/09/2013		66.5000	*	27.2000
Zinc, total	ug/L	MW-16	03/30/2014		31.9000	*	27.2000
Zinc, total	ug/L	MW-16	09/19/2014		11.0000		27.2000
Zinc, total	ug/L	MW-16	04/20/2015		12.2000		27.2000
Zinc, total	ug/L	MW-16	10/05/2015		9.5000		27.2000
Zinc, total	ug/L	MW-16	04/05/2016		12.1000		27.2000
Zinc, total	ug/L	MW-16	10/05/2016	ND	8.0000		27.2000
Zinc, total	ug/L	MW-16	04/04/2017	ND	8.0000		27.2000
Zinc, total	ug/L	MW-16	10/03/2017	ND	8.0000		27.2000
Zinc, total	ug/L	MW-16	04/10/2018	ND	20.0000		27.2000
Zinc, total	ug/L	MW-16	10/12/2018	ND	20.0000		27.2000
Zinc, total	ug/L	MW-16	04/16/2019	ND	8.0000		27.2000
Zinc, total	ug/L	MW-16	09/30/2019	ND	8.0000		27.2000
Zinc, total	ug/L	MW-16	04/07/2020	ND	20.0000		27.2000
Zinc, total	ug/L	MW-16	10/07/2020	ND	20.0000		27.2000
Zinc, total	ug/L	MW-16	04/22/2021	ND	20.0000		27.2000
Zinc, total	ug/L	MW-16	10/05/2021	ND	20.0000		27.2000
Zinc, total	ug/L	MW-16	04/04/2022	ND	20.0000		27.2000
Zinc, total	ug/L	MW-16	10/05/2022		30.7000	*	27.2000
Zinc, total	ug/L	MW-16	01/03/2023	ND	20.0000		27.2000
Zinc, total	ug/L	MW-16	04/14/2023	ND	20.0000		27.2000
Zinc, total	ug/L	MW-16	10/18/2023	ND	20.0000		27.2000
Zinc, total	ug/L	MW-16	04/08/2024		32.4000	*	27.2000
Barium, total	ug/L	MW-6	03/06/2009		626.0000	*	317.3349
Barium, total	ug/L	MW-6	06/16/2009		625.0000	*	317.3349
Barium, total	ug/L	MW-6	07/13/2009		636.0000	*	317.3349
Barium, total	ug/L	MW-6	08/31/2009		505.0000	*	317.3349
Barium, total	ug/L	MW-6	10/20/2009		665.0000	*	317.3349
Barium, total	ug/L	MW-6	03/15/2010		329.0000	*	317.3349
Barium, total	ug/L	MW-6	06/10/2010		644.0000	*	317.3349
Barium, total	ug/L	MW-6	09/14/2010		616.0000	*	317.3349
Barium, total	ug/L	MW-6	03/11/2011		653.0000	*	317.3349
Barium, total	ug/L	MW-6	09/07/2011		606.5000	*	317.3349
Barium, total	ug/L	MW-6	03/14/2012		519.0000	*	317.3349
Barium, total	ug/L	MW-6	09/01/2012		497.0000	*	317.3349
Barium, total	ug/L	MW-6	04/01/2013		665.0000	*	317.3349
Barium, total	ug/L	MW-6	09/09/2013		606.0000	*	317.3349
Barium, total	ug/L	MW-6	03/30/2014		612.0000	*	317.3349
Barium, total	ug/L	MW-6	09/19/2014		591.0000	*	317.3349
Barium, total	ug/L	MW-6	04/20/2015		717.0000	*	317.3349
Barium, total	ug/L	MW-6	10/05/2015		479.0000	*	317.3349
Barium, total	ug/L	MW-6	04/05/2016		408.0000	*	317.3349
Barium, total	ug/L	MW-6	10/05/2016		231.0000		317.3349
Barium, total	ug/L	MW-6	04/04/2017		154.0000		317.3349
Barium, total	ug/L	MW-6	10/03/2017		573.0000	*	317.3349
Barium, total	ug/L	MW-6	01/03/2018		613.0000	*	317.3349
Barium, total	ug/L	MW-6	04/10/2018		435.0000	*	317.3349
Barium, total	ug/L	MW-6	10/12/2018		289.0000		317.3349
Barium, total	ug/L	MW-6	04/16/2019		274.0000		317.3349
Barium, total	ug/L	MW-6	09/30/2019		409.0000	*	317.3349
Barium, total	ug/L	MW-6	04/07/2020		209.0000		317.3349
Barium, total	ug/L	MW-6	10/07/2020		226.0000		317.3349
Barium, total	ug/L	MW-6	04/22/2021		180.0000		317.3349
Barium, total	ug/L	MW-6	10/05/2021		497.0000	*	317.3349
Barium, total	ug/L	MW-6	04/04/2022		521.0000	*	317.3349
Barium, total	ug/L	MW-6	10/05/2022		551.0000	*	317.3349
Barium, total	ug/L	MW-6	04/14/2023		133.0000		317.3349
Barium, total	ug/L	MW-6	10/18/2023		431.0000	*	317.3349
Barium, total	ug/L	MW-6	04/08/2024		171.0000		317.3349
Copper, total	ug/L	MW-6	03/06/2009		5.0000	*	4.0000
Copper, total	ug/L	MW-6	06/16/2009		4.9000	*	4.0000
Copper, total	ug/L	MW-6	07/13/2009		12.0000	*	4.0000
Copper, total	ug/L	MW-6	08/31/2009		5.2000	*	4.0000
Copper, total	ug/L	MW-6	10/20/2009	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	03/15/2010	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.

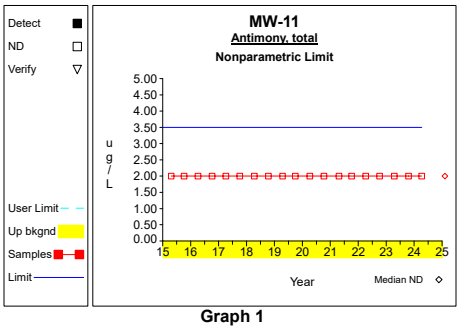
Table 8

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

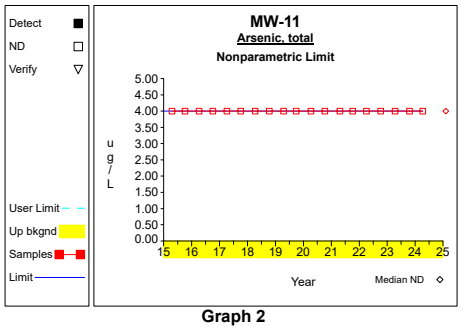
Constituent	Units	Well	Date		Result		Pred. Limit
Copper, total	ug/L	MW-6	06/10/2010	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	09/14/2010		5.0000	*	4.0000
Copper, total	ug/L	MW-6	03/11/2011		4.2000	*	4.0000
Copper, total	ug/L	MW-6	09/07/2011		7.5000	*	4.0000
Copper, total	ug/L	MW-6	03/14/2012		5.4000	*	4.0000
Copper, total	ug/L	MW-6	09/01/2012		6.3000	*	4.0000
Copper, total	ug/L	MW-6	04/01/2013		14.3000	*	4.0000
Copper, total	ug/L	MW-6	09/09/2013		6.0000	*	4.0000
Copper, total	ug/L	MW-6	03/30/2014		6.0000	*	4.0000
Copper, total	ug/L	MW-6	09/19/2014		4.5000	*	4.0000
Copper, total	ug/L	MW-6	04/20/2015		4.2000	*	4.0000
Copper, total	ug/L	MW-6	10/05/2015	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	04/05/2016	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	10/05/2016	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	04/04/2017	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	10/03/2017	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	04/10/2018	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	10/12/2018	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	04/16/2019	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	09/30/2019	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	04/07/2020	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	10/07/2020	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	04/22/2021	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	10/05/2021	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	04/04/2022	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	10/05/2022		6.9000	*	4.0000
Copper, total	ug/L	MW-6	04/14/2023	ND	4.0000		4.0000
Copper, total	ug/L	MW-6	10/18/2023		4.1000	*	4.0000
Copper, total	ug/L	MW-6	04/08/2024	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.

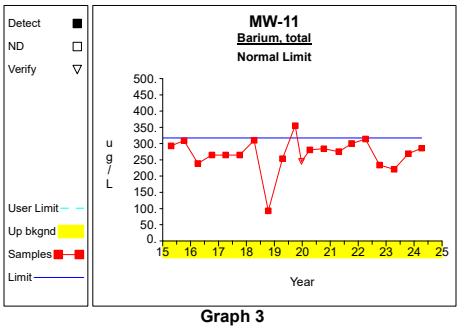
Up vs. Down Prediction Limits



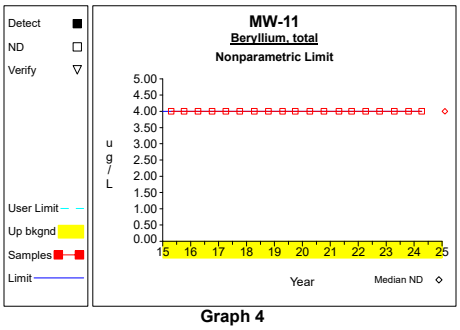
Graph 1



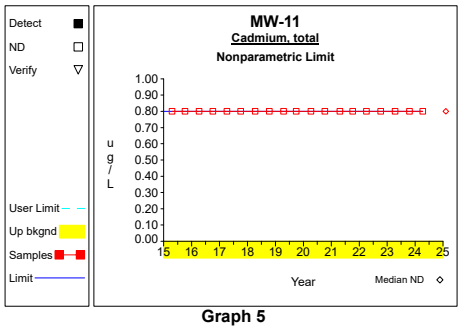
Graph 2



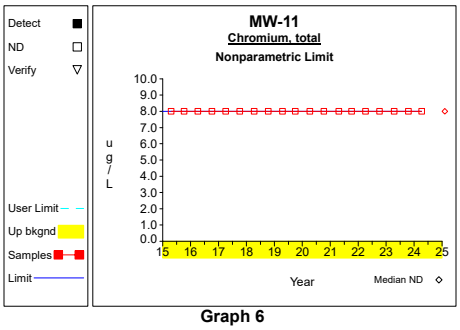
Graph 3



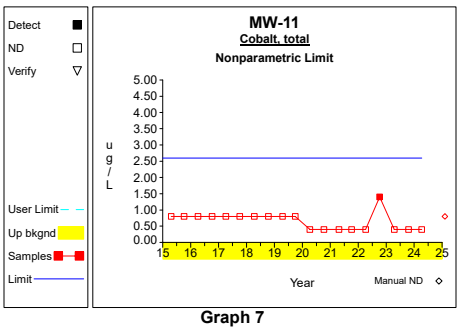
Graph 4



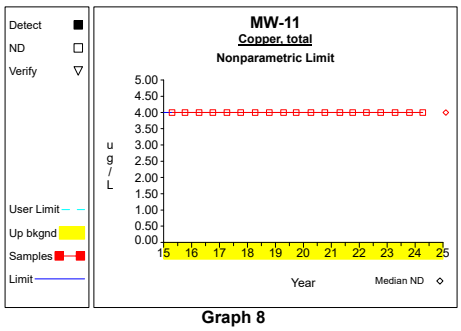
Graph 5



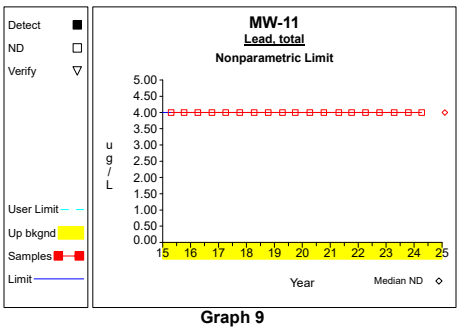
Graph 6



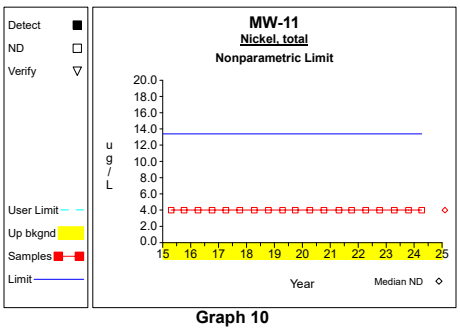
Graph 7



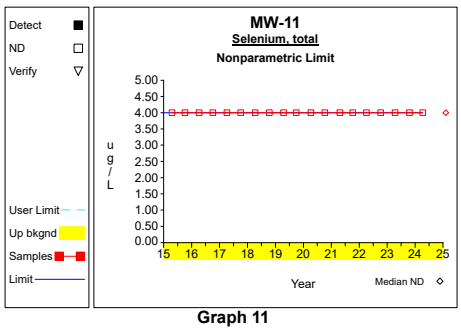
Graph 8



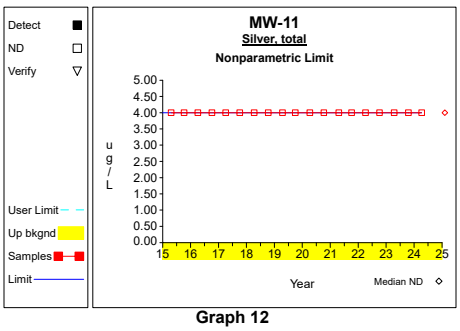
Graph 9



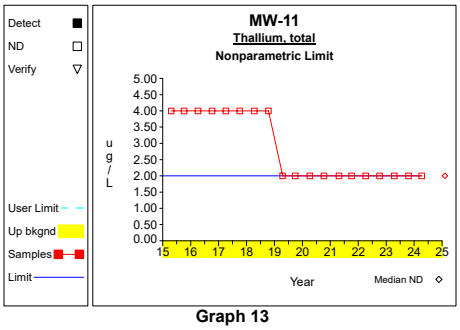
Graph 10



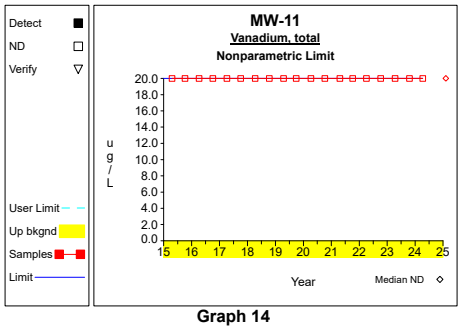
Graph 11



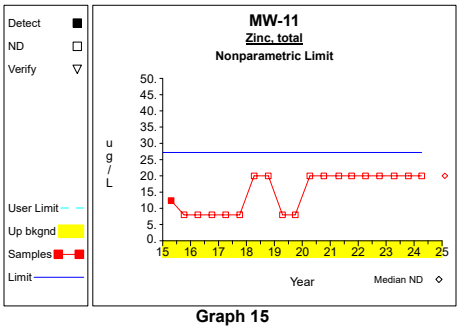
Graph 12



Graph 13



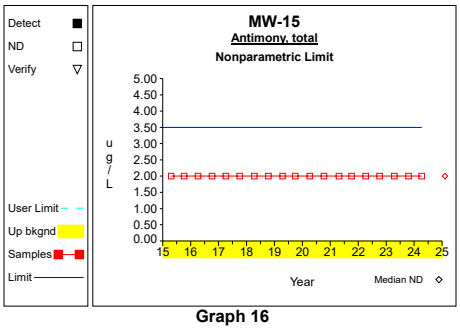
Graph 14



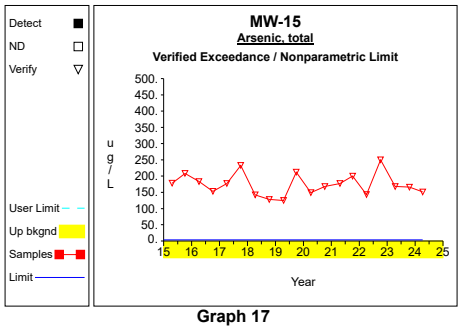
Graph 15

Prepared by: Otter Creek Environmental

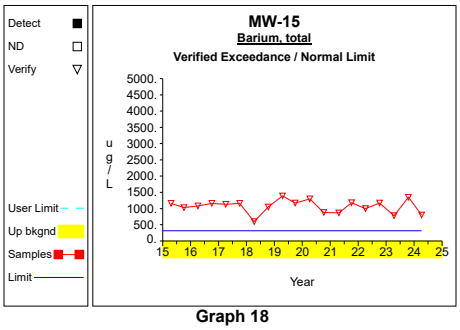
Up vs. Down Prediction Limits



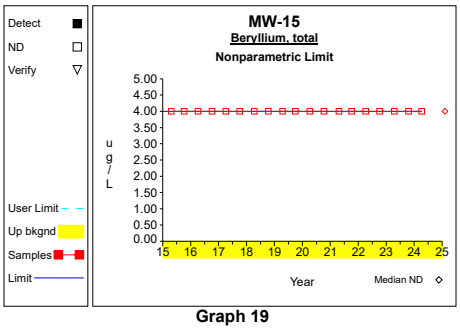
Graph 16



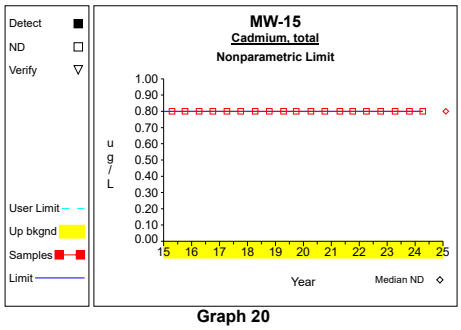
Graph 17



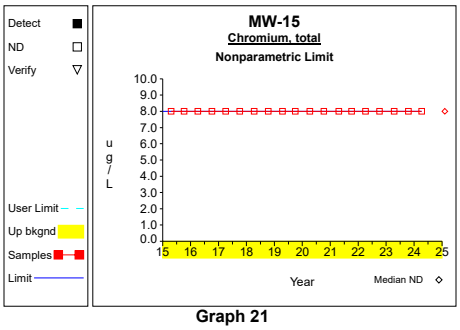
Graph 18



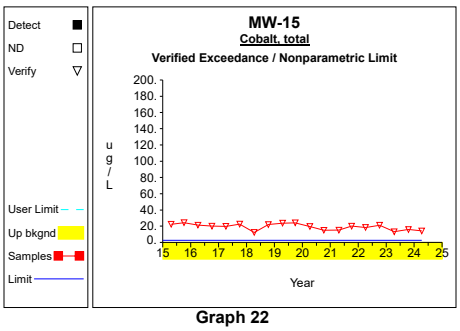
Graph 19



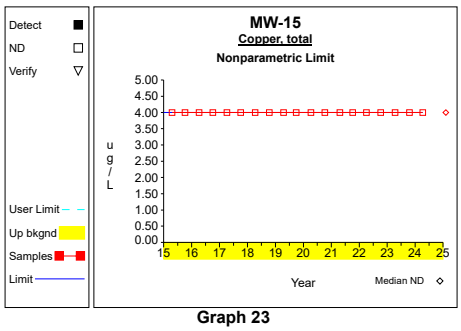
Graph 20



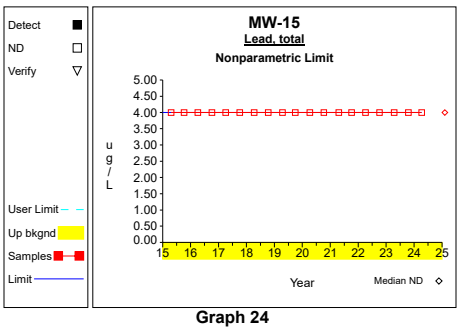
Graph 21



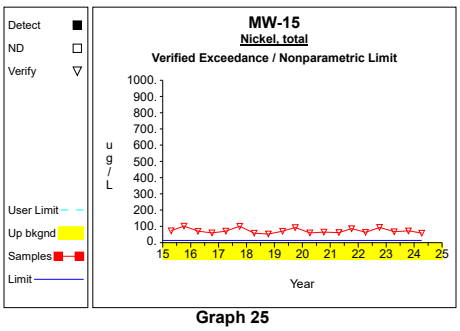
Graph 22



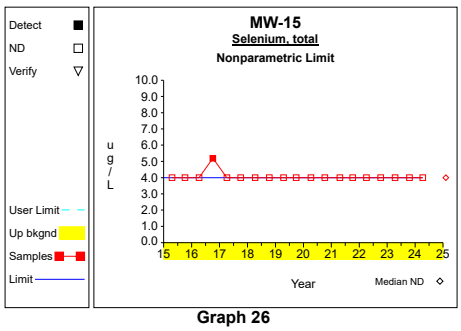
Graph 23



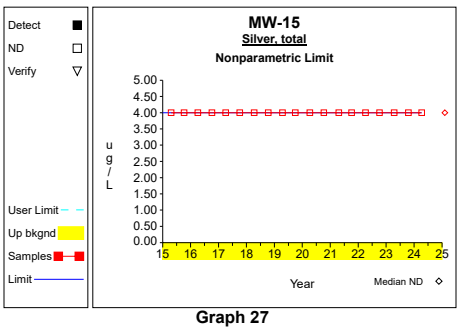
Graph 24



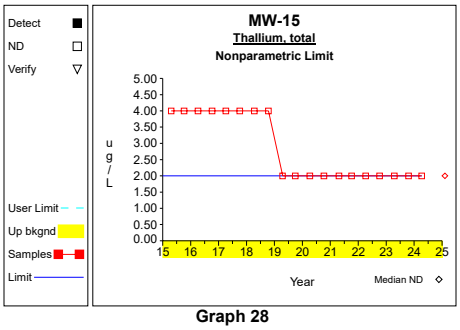
Graph 25



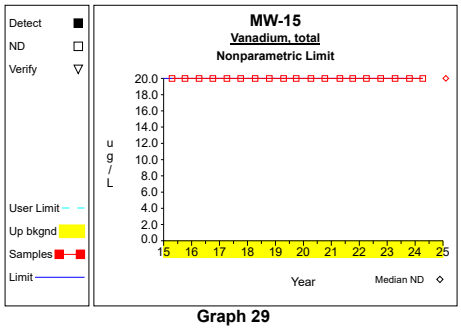
Graph 26



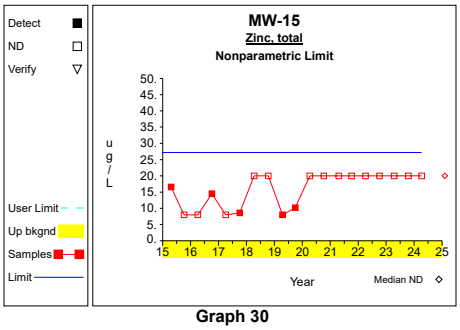
Graph 27



Graph 28



Graph 29



Graph 30

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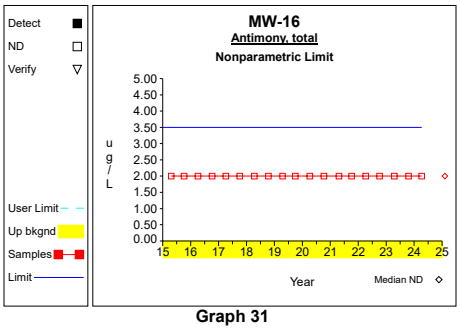
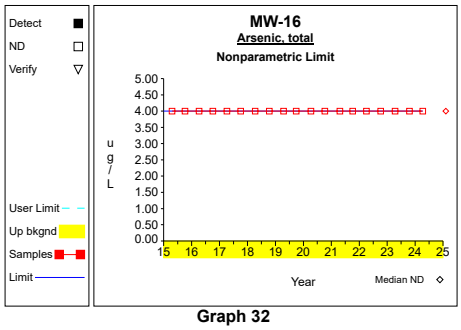
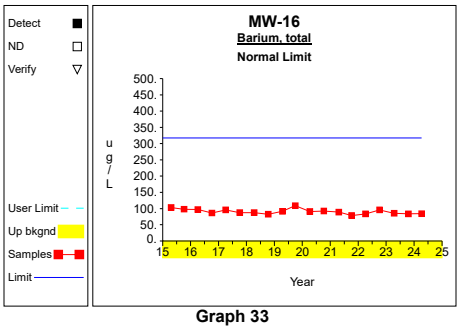
Up vs. Down Prediction Limits



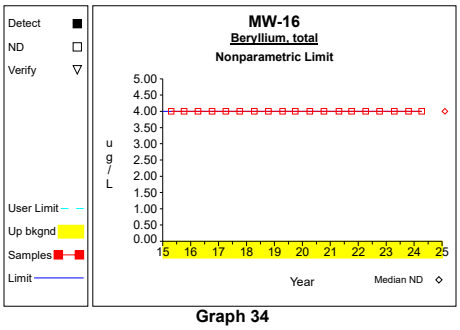
Graph 31



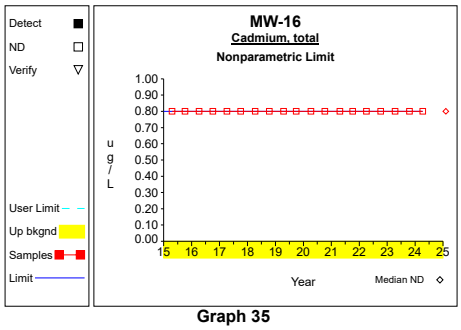
Graph 32



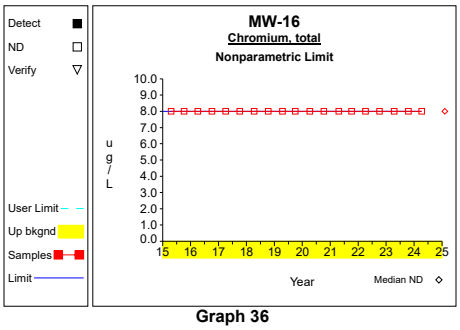
Graph 33



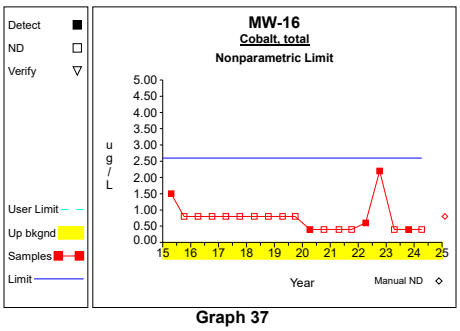
Graph 34



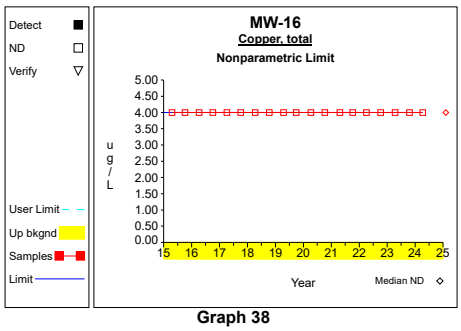
Graph 35



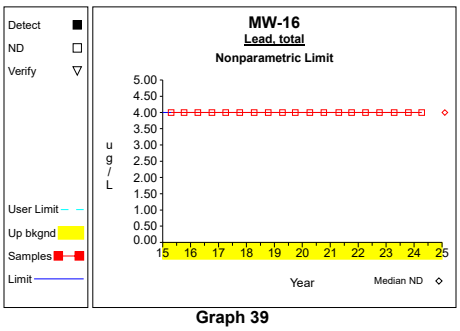
Graph 36



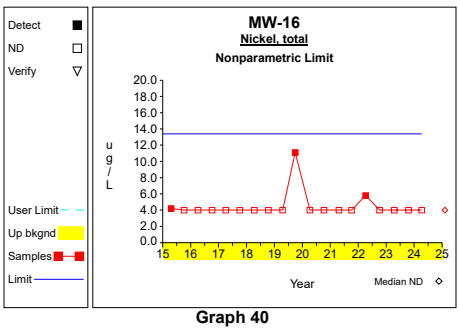
Graph 37



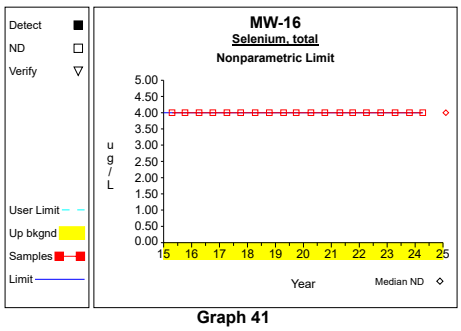
Graph 38



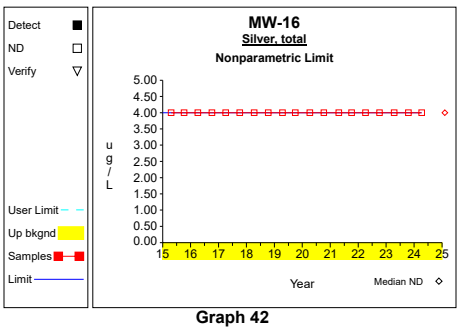
Graph 39



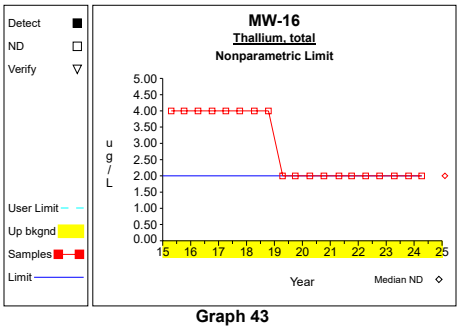
Graph 40



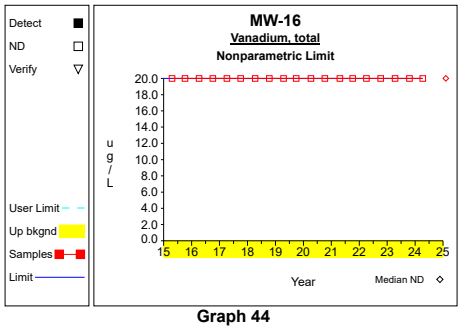
Graph 41



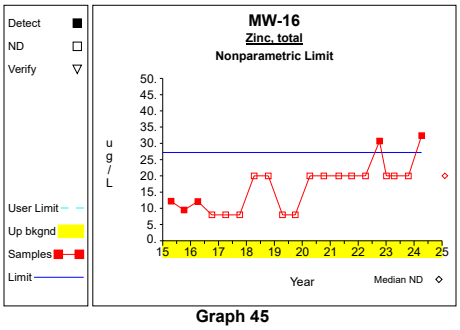
Graph 42



Graph 43



Graph 44



Graph 45

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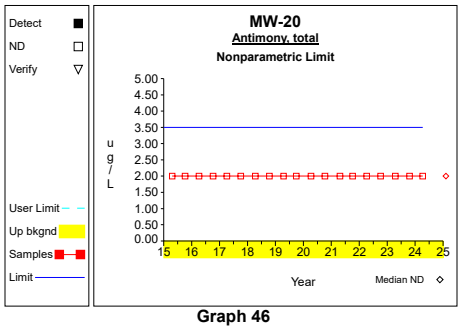
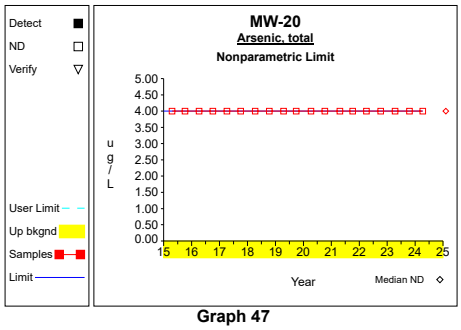
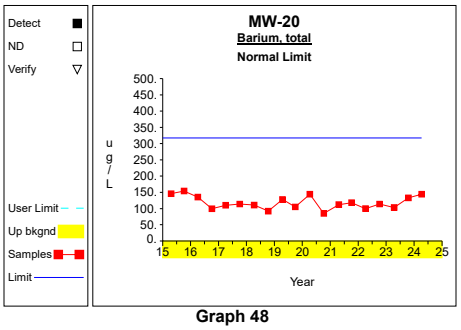
Up vs. Down Prediction Limits



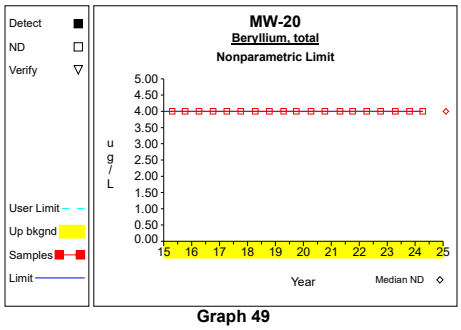
Graph 46



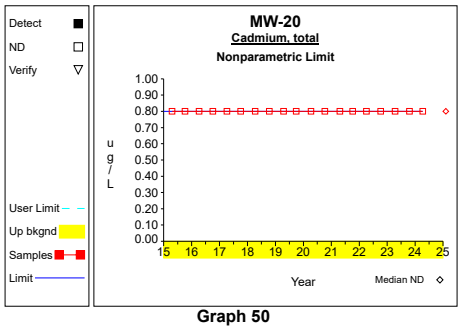
Graph 47



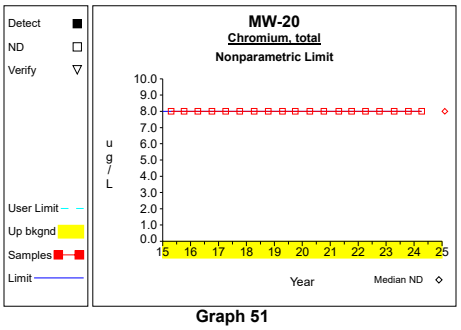
Graph 48



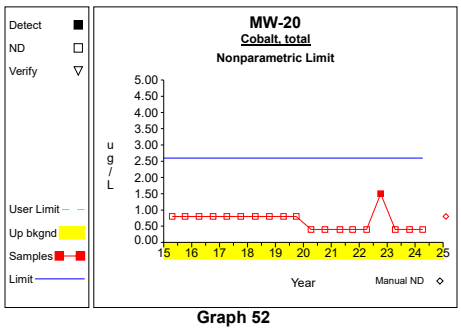
Graph 49



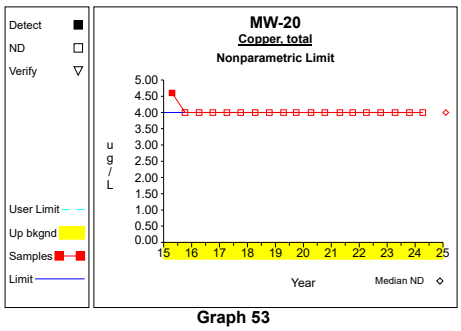
Graph 50



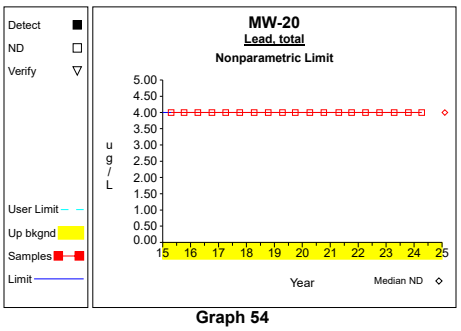
Graph 51



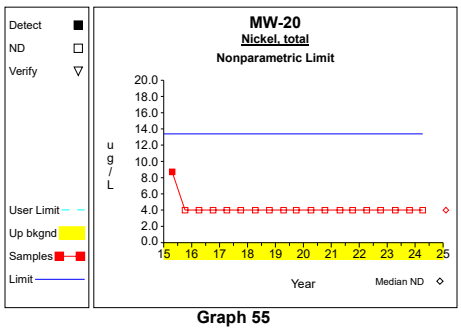
Graph 52



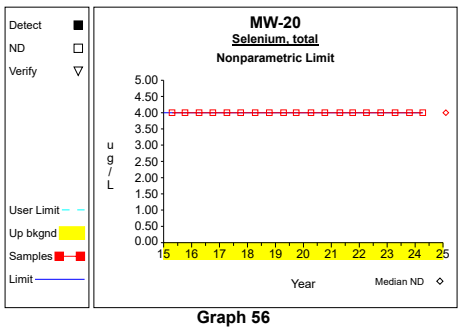
Graph 53



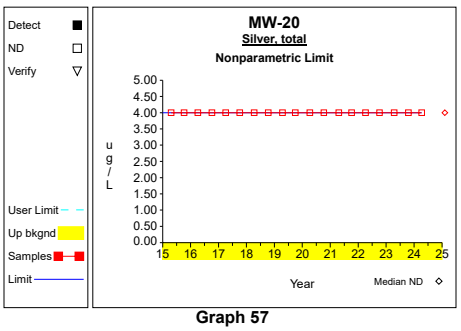
Graph 54



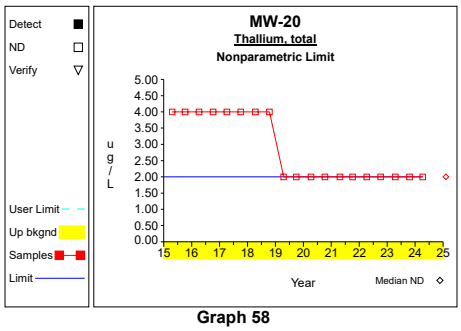
Graph 55



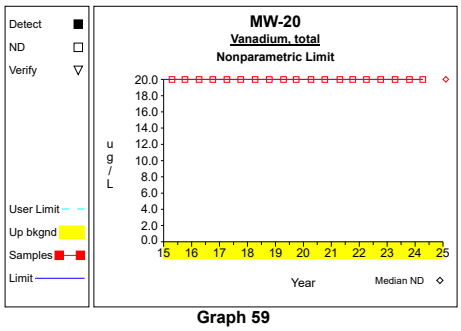
Graph 56



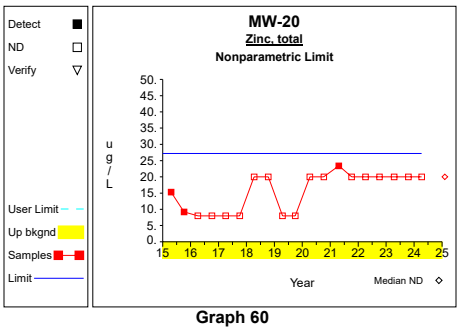
Graph 57



Graph 58



Graph 59



Graph 60

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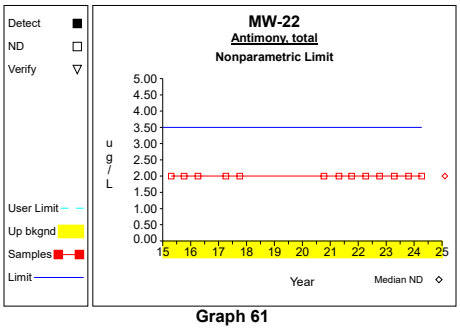
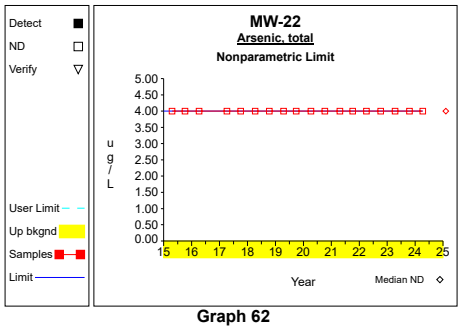
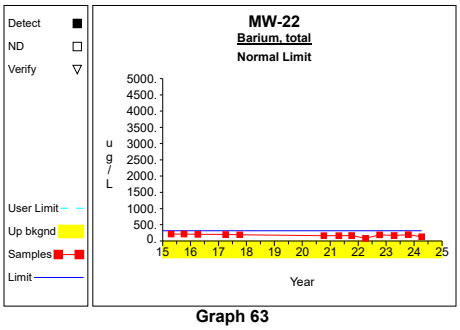
Up vs. Down Prediction Limits



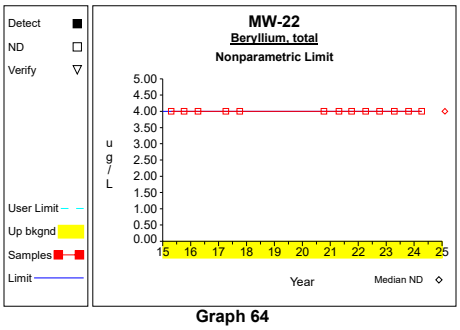
Graph 61



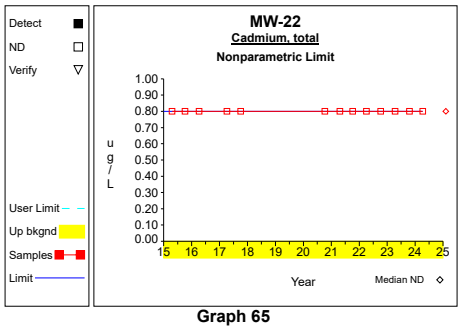
Graph 62



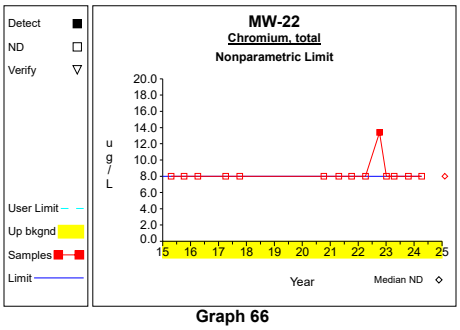
Graph 63



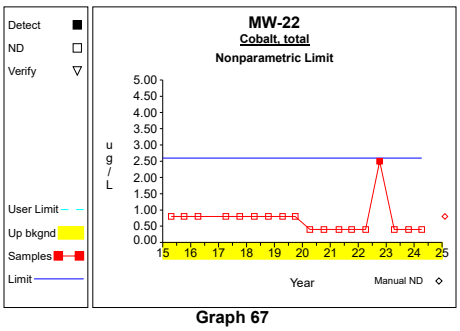
Graph 64



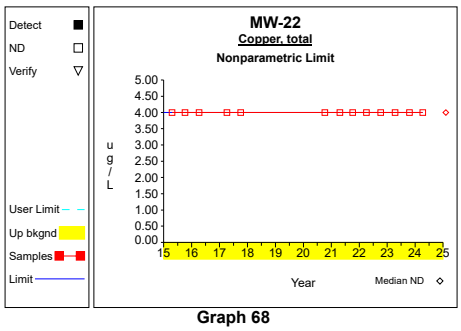
Graph 65



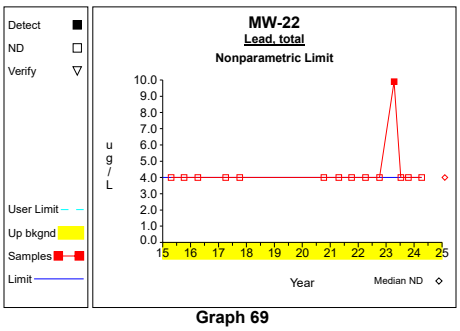
Graph 66



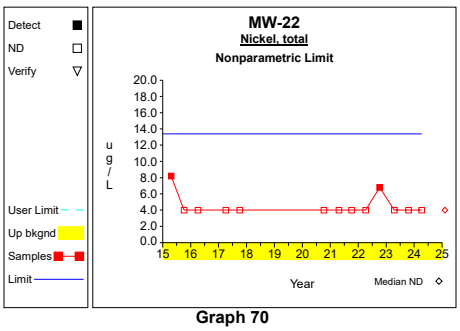
Graph 67



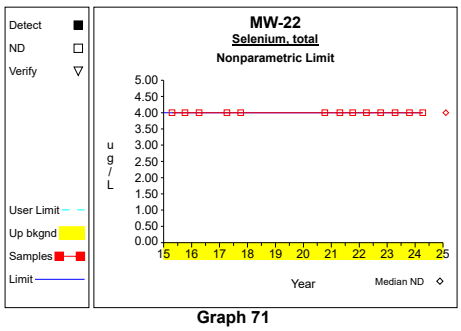
Graph 68



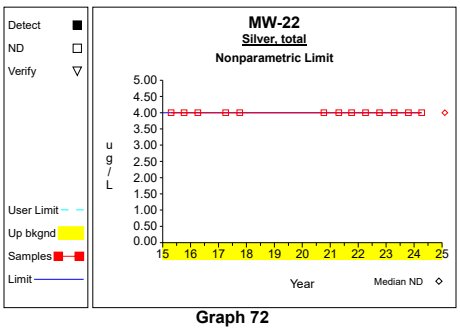
Graph 69



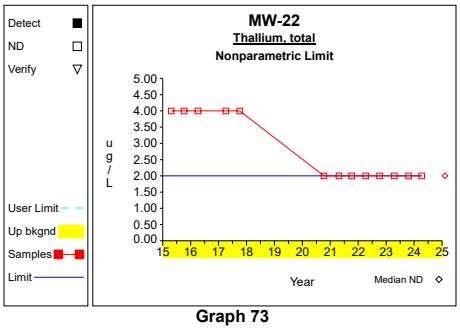
Graph 70



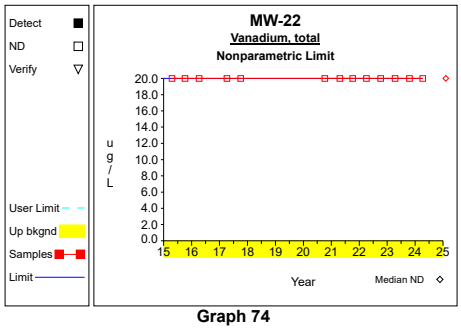
Graph 71



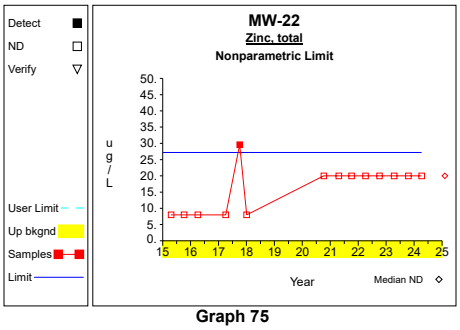
Graph 72



Graph 73



Graph 74



Graph 75

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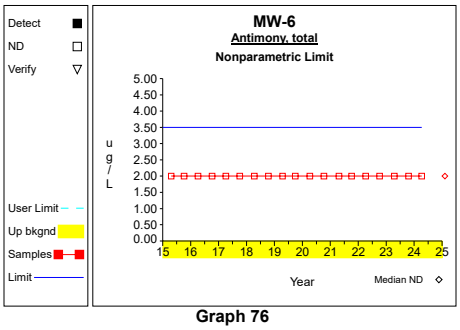
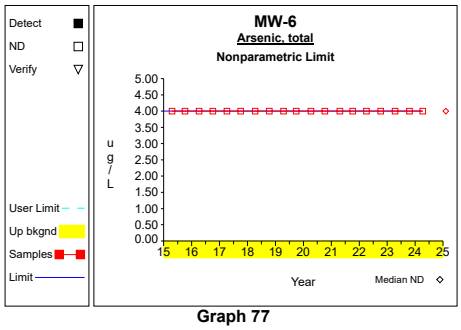
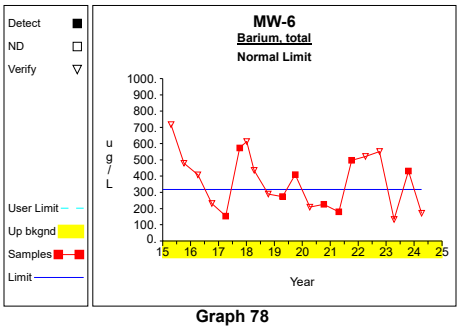
Up vs. Down Prediction Limits



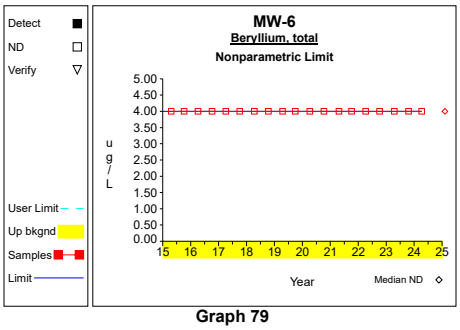
Graph 76



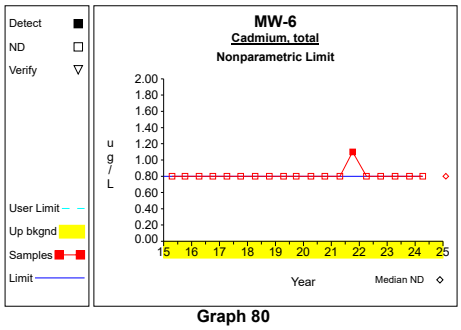
Graph 77



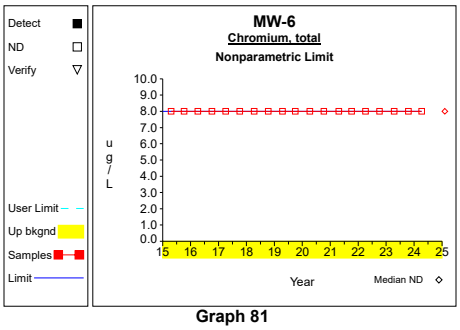
Graph 78



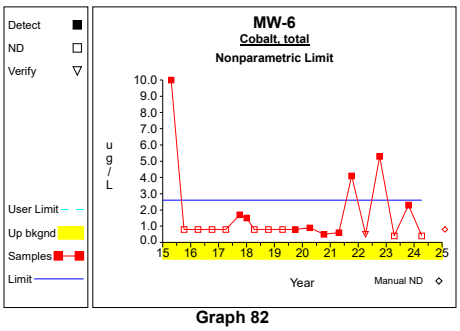
Graph 79



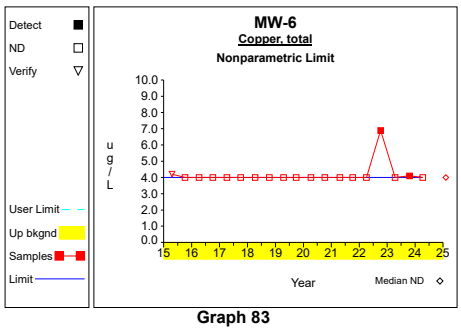
Graph 80



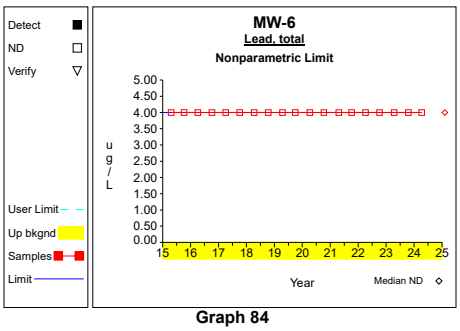
Graph 81



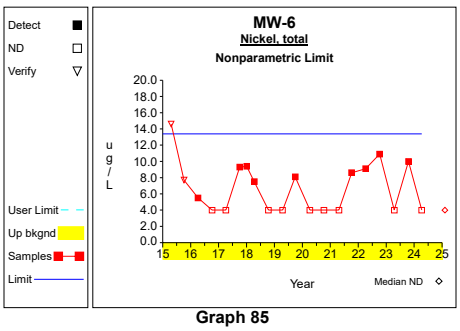
Graph 82



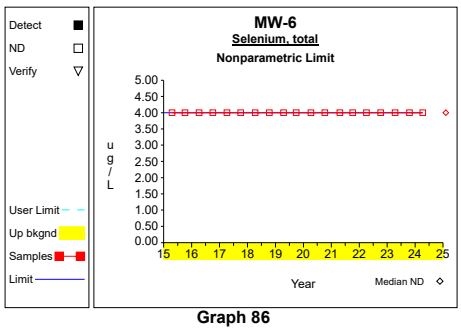
Graph 83



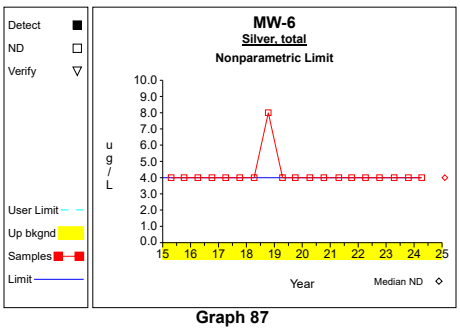
Graph 84



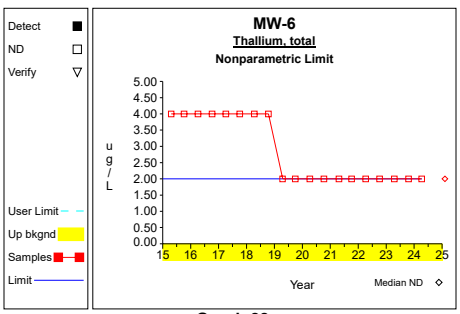
Graph 85



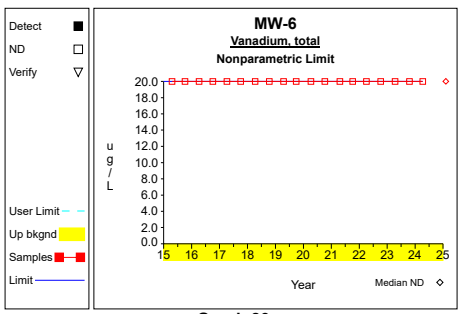
Graph 86



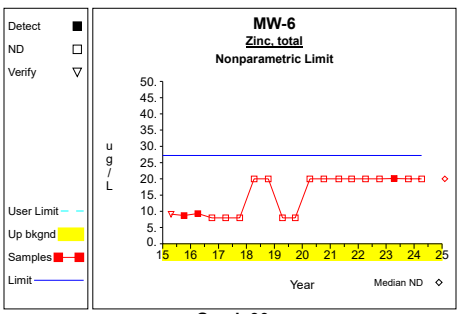
Graph 87



Graph 88



Graph 89



Graph 90

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False Positive and False Negative Rates for Current

Upgradient vs. Downgradient Monitoring Program

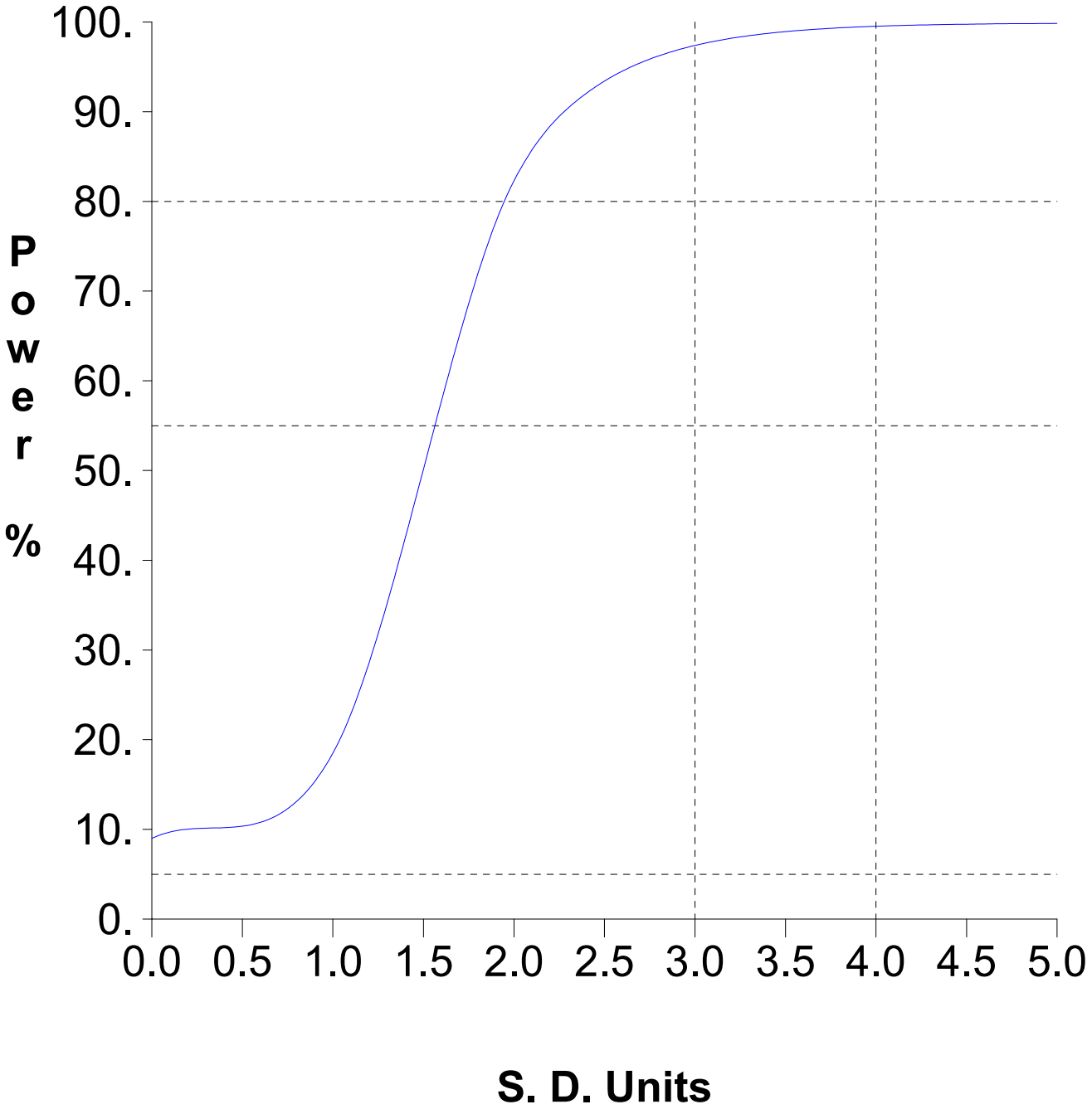


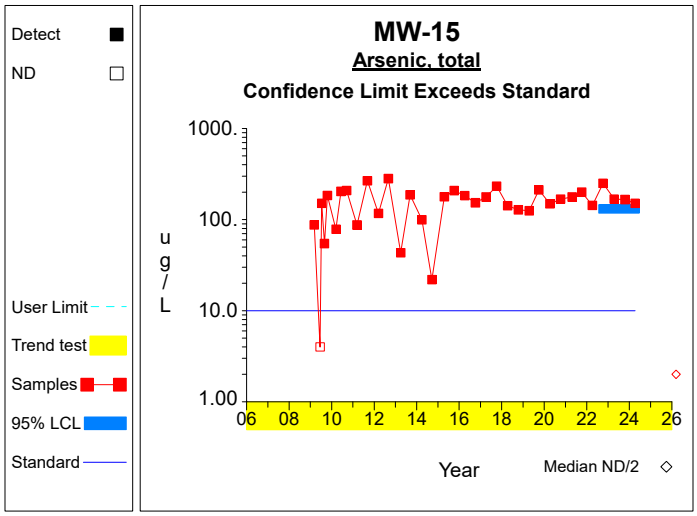
Table 1

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

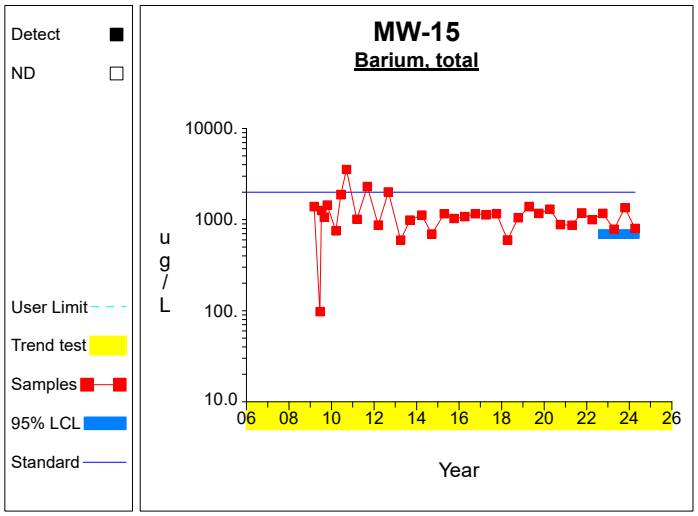
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Arsenic, total	ug/L	MW-15	4	183.750	44.814	1.176	131.036	236.464	10.000		**
Barium, total	ug/L	MW-15	4	1025.750	280.379	1.176	695.944	1355.556	2000.000		
Cobalt, total	ug/L	MW-15	4	16.075	3.608	1.176	11.831	20.319	2.100	dec	**
Nickel, total	ug/L	MW-15	4	72.875	14.960	1.176	55.277	90.473	100.000		
Zinc, total	ug/L	MW-15	4	10.000	0.000	1.176	10.000	10.000	2000.000	dec	
Arsenic, total	ug/L	MW-16	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-16	4	87.350	5.661	1.176	80.691	94.009	2000.000	dec	
Cobalt, total	ug/L	MW-16	4	0.850	0.900	1.176	0.000	1.909	2.100		
Nickel, total	ug/L	MW-16	4	2.000	0.000	1.176	2.000	2.000	100.000		
Zinc, total	ug/L	MW-16	4	15.600	11.200	1.176	2.426	28.774	2000.000		
Arsenic, total	ug/L	MW-6	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-6	4	321.500	202.355	1.176	83.472	559.528	2000.000	dec	
Cobalt, total	ug/L	MW-6	4	2.100	2.314	1.176	0.000	4.822	2.100		
Nickel, total	ug/L	MW-6	4	6.225	4.892	1.176	0.470	11.980	100.000	dec	
Zinc, total	ug/L	MW-6	4	12.525	5.050	1.176	6.585	18.465	2000.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

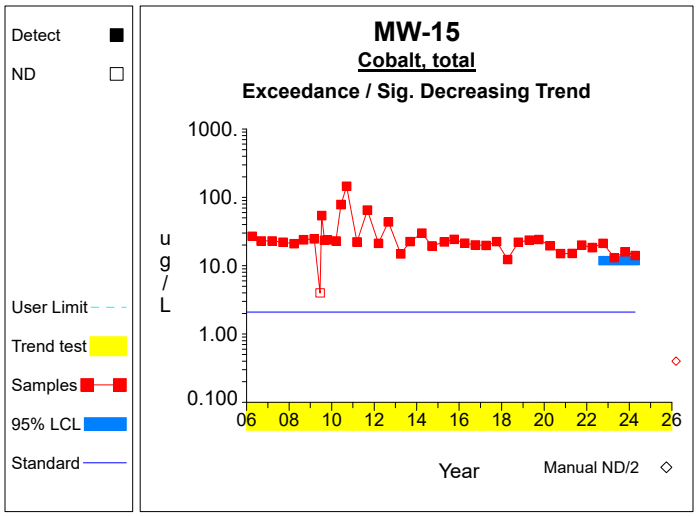
Confidence Limits (Assessment)



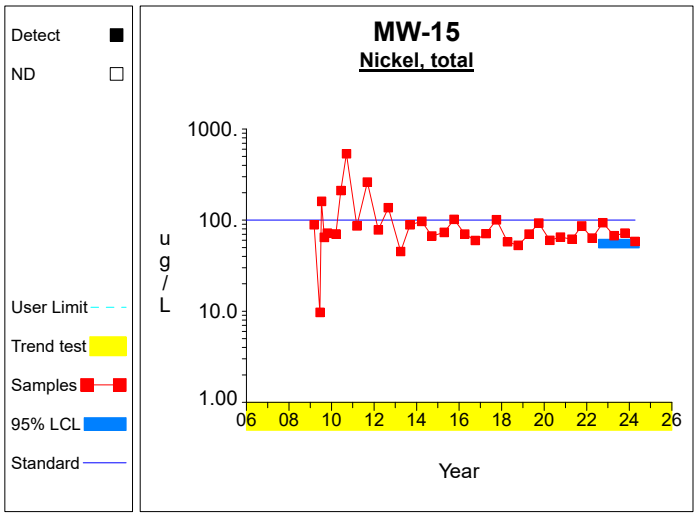
Graph 1



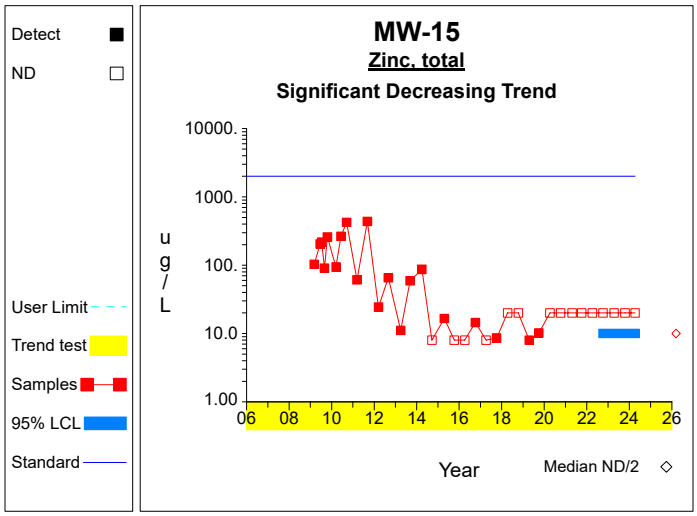
Graph 2



Graph 3



Graph 4



Graph 5

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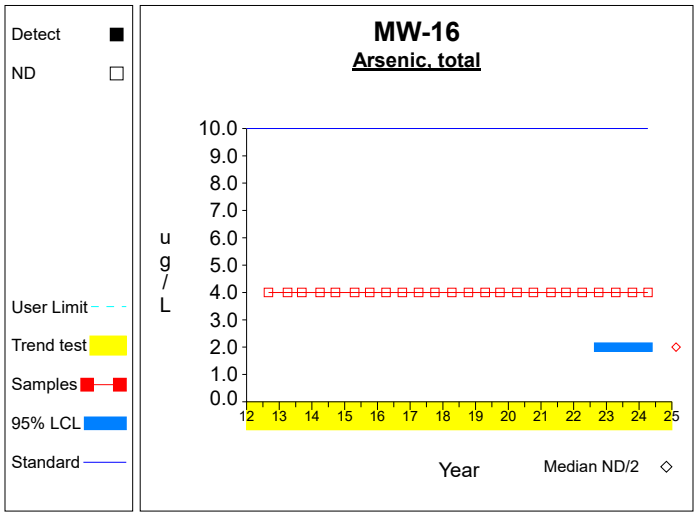
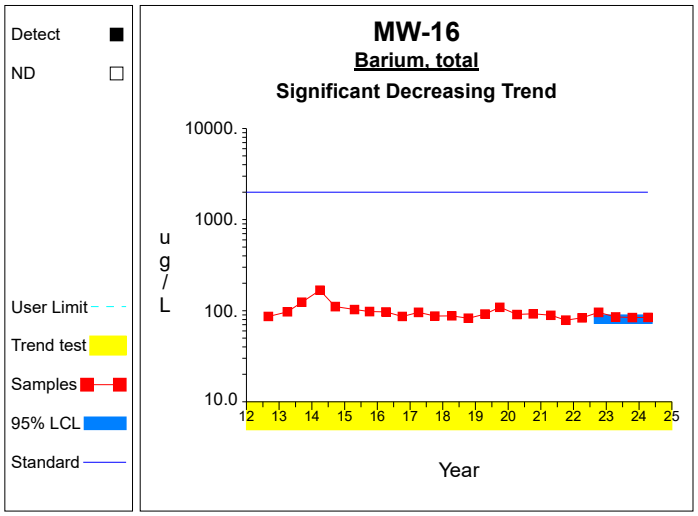
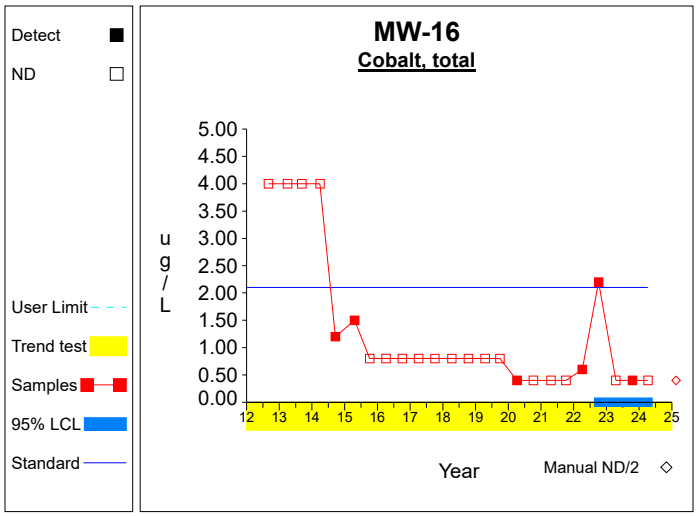
Confidence Limits (Assessment)



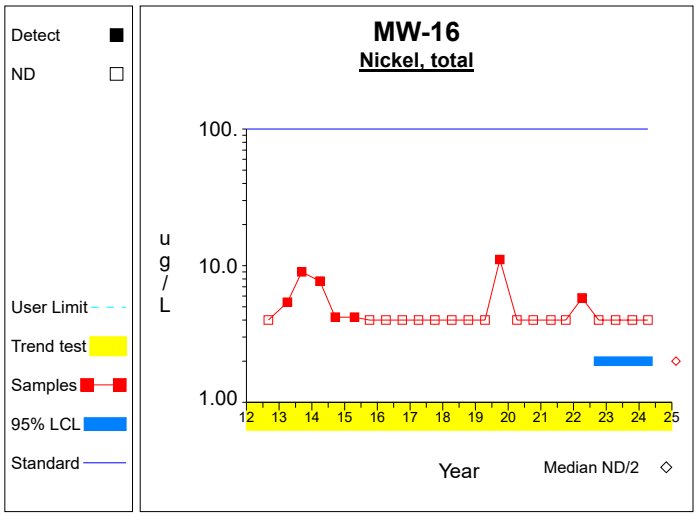
Graph 6



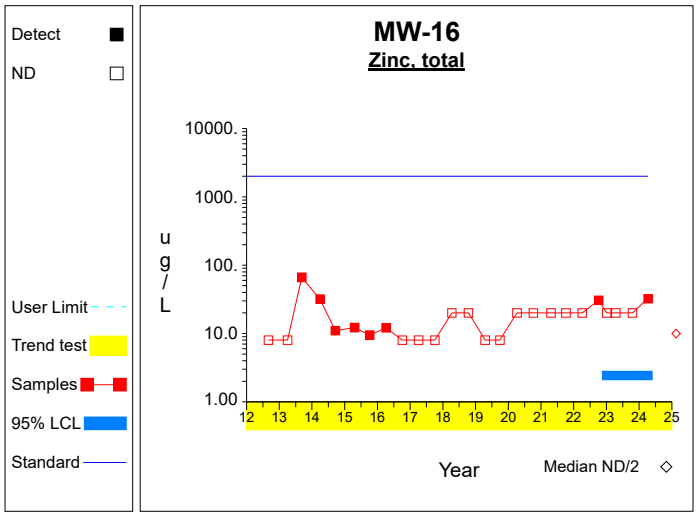
Graph 7



Graph 8

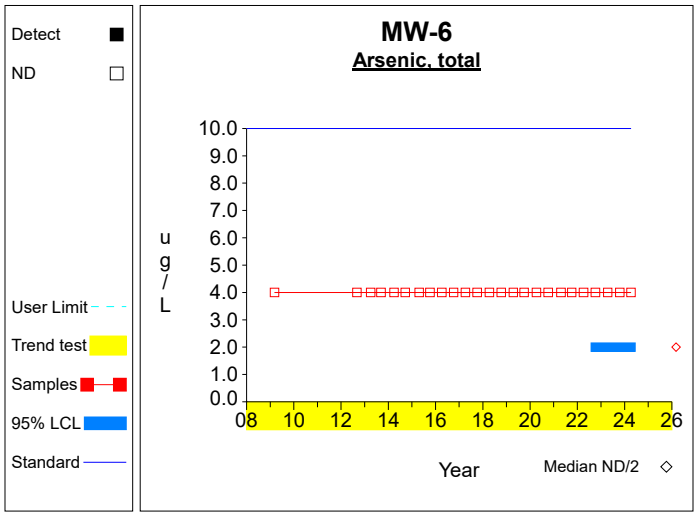


Graph 9

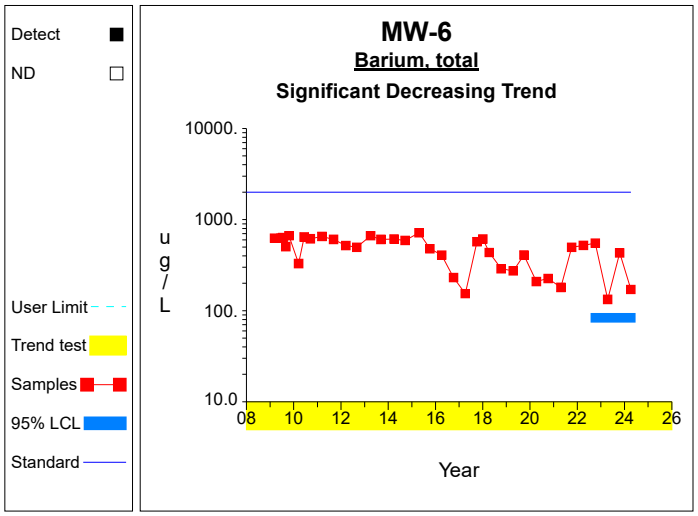


Graph 10

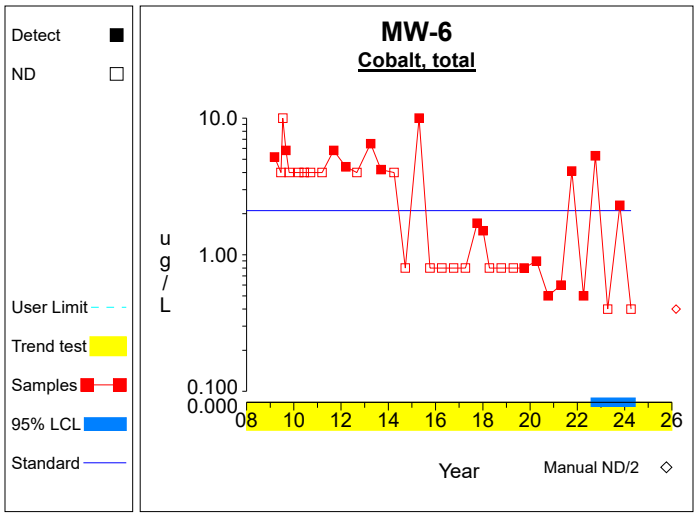
Confidence Limits (Assessment)



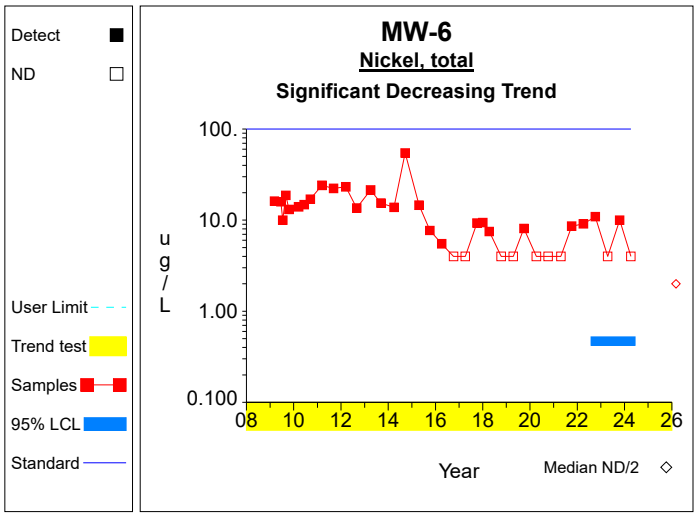
Graph 11



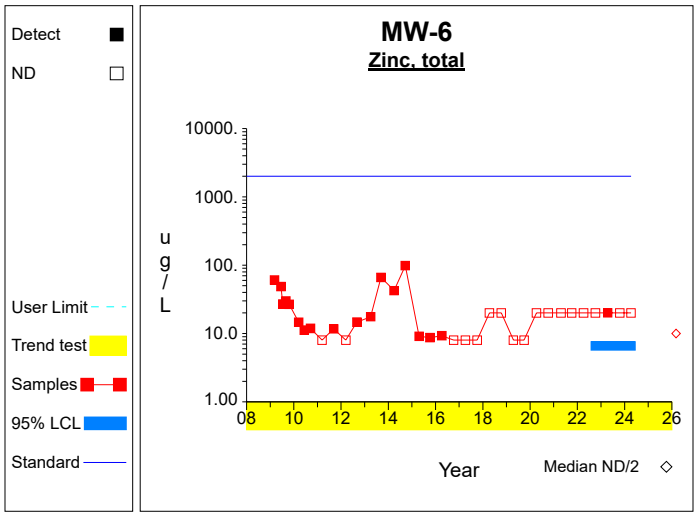
Graph 12



Graph 13



Graph 14



Graph 15

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Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **735.0** / **4** = **183.75**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**141081.0** - **540225.0**/**4**) / (**4**-1))^{½} = **44.814**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **183.75** - **2.353** * **44.814**/**4**^{½} = **131.036**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **183.75** + **2.353** * **44.814**/**4**^{½} = **236.464**	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 = **4.226**	Sen's estimator of trend.
7	var(S) = **4955.333**	Variance estimate for slope.
8	M(S) = (**N**' ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**595** ± **2.576** * **4955.333**^{½}) / 2 = [**206.832**, **388.168**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-2.873**, **10.524**]	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-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **4103.0** / **4** = **1025.75**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**4.44**x**10^6** - **1.68**x**10^7**/**4**) / (**4**-1))^{½} = **280.379**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **1025.75** - **2.353** * **280.379**/**4**^{½} = **695.944**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **1025.75** + **2.353** * **280.379**/**4**^{½} = **1355.556**	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 = **-8.875**	Sen's estimator of trend.
7	var(S) = **4952.667**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**595** ± **2.576** * **4952.667**^{½}) / 2 = [**206.857**, **388.143**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-48.044**, **26.482**]	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-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **64.3** / **4** = **16.075**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1072.67** - **4134.49**/**4**) / (**4**-1))^{½} = **3.608**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **16.075** - **2.353** * **3.608**/**4**^{½} = **11.831**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **16.075** + **2.353** * **3.608**/**4**^{½} = **20.319**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **41** * (**41**-1) / 2 = **820**	Number of sample pairs during trend detection period.
6	S = **-0.479**	Sen's estimator of trend.
7	var(S) = **7920.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**820** ± **2.576** * **7920.0**^{½}) / 2 = [**295.375**, **524.625**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-0.91**, **-0.136**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
Nickel, total (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **291.5** / **4** = **72.875**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))$^{1/2}$ = ((**21914.51** - **84972.25**/**4**) / (**4**-1))$^{1/2}$ = **14.96**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{1/2}$ = **72.875** - **2.353** * **14.96**/**4**$^{1/2}$ = **55.277**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{1/2}$ = **72.875** + **2.353** * **14.96**/**4**$^{1/2}$ = **90.473**	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 = **-1.45**	Sen's estimator of trend.
7	var(S) = **4956.333**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{1/2}$) / 2 = (**595** ± **2.576** * **4956.333**$^{1/2}$) / 2 = [**206.823**, **388.177**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-4.803**, **0.726**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Zinc, total (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **40.0** / **4** = **10.0**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**400.0** - **1600.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **10.0** - **2.353** * **0.0**/**4**^{½} = **10.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **10.0** + **2.353** * **0.0**/**4**^{½} = **10.0**	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 = **-6.162**	Sen's estimator of trend.
7	var(S) = **4550.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**595** ± **2.576** * **4550.0**^{½}) / 2 = [**210.62**, **384.38**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-12.44**, **-0.673**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-16

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **8.0** / **4** = **2.0**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**16.0** - **64.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **2.0** - **2.353** * **0.0**/**4**^{½} = **2.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **2.0** + **2.353** * **0.0**/**4**^{½} = **2.0**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **24** * (**24**-1) / 2 = **276**	Number of sample pairs during trend detection period.
6	S = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**276** ± **2.576** * **0.0**^{½}) / 2 = [**138.0**, **138.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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-16

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **349.4** / **4** = **87.35**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**30616.22** - **122080.36**/**4**) / (**4**-1))^{½} = **5.661**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **87.35** - **2.353** * **5.661**/**4**^{½} = **80.691**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **87.35** + **2.353** * **5.661**/**4**^{½} = **94.009**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **24** * (**24**-1) / 2 = **276**	Number of sample pairs during trend detection period.
6	S = **-1.721**	Sen's estimator of trend.
7	var(S) = **1624.333**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**276** ± **2.576** * **1624.333**^{½}) / 2 = [**86.09**, **189.91**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-3.793**, **-0.313**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
Cobalt, total (ug/L) at MW-16

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **3.4** / **4** = **0.85**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**5.32** - **11.56**/**4**) / (**4**-1))^{½} = **0.9**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.85** - **2.353** * **0.9**/**4**^{½} = **0.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.85** + **2.353** * **0.9**/**4**^{½} = **1.909**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **24** * (**24**-1) / 2 = **276**	Number of sample pairs during trend detection period.
6	S = **0.0**	Sen's estimator of trend.
7	var(S) = **675.333**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**276** ± **2.576** * **675.333**^{½}) / 2 = [**104.529**, **171.471**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Nickel, total (ug/L) at MW-16

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **8.0** / **4** = **2.0**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**16.0** - **64.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **2.0** - **2.353** * **0.0**/**4**^{½} = **2.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **2.0** + **2.353** * **0.0**/**4**^{½} = **2.0**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **24** * (**24**-1) / 2 = **276**	Number of sample pairs during trend detection period.
6	S = **0.0**	Sen's estimator of trend.
7	var(S) = **1035.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**276** ± **2.576** * **1035.0**^{½}) / 2 = [**96.563**, **179.437**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-0.265**, **0.0**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Zinc, total (ug/L) at MW-16

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **62.4** / **4** = **15.6**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1349.76** - **3893.76**/**4**) / (**4**-1))^{½} = **11.2**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **15.6** - **2.353** * **11.2**/**4**^{½} = **2.426**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **15.6** + **2.353** * **11.2**/**4**^{½} = **28.774**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **1244.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **1244.0**^{½}) / 2 = [**104.572**, **195.428**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **8.0** / **4** = **2.0**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**16.0** - **64.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **2.0** - **2.353** * **0.0**/**4**^{½} = **2.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **2.0** + **2.353** * **0.0**/**4**^{½} = **2.0**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **0.0**^{½}) / 2 = [**150.0**, **150.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **1286.0** / **4** = **321.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**536292.0** - **1.65**x**10^6**/**4**) / (**4**-1))^{½} = **202.355**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **321.5** - **2.353** * **202.355**/**4**^{½} = **83.472**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **321.5** + **2.353** * **202.355**/**4**^{½} = **559.528**	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 = **-21.601**	Sen's estimator of trend.
7	var(S) = **5388.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**630** ± **2.576** * **5388.0**^{½}) / 2 = [**220.457**, **409.543**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-37.473**, **-7.622**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

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

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **8.4** / **4** = **2.1**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**33.7** - **70.56**/**4**) / (**4**-1))^{½} = **2.314**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **2.1** - **2.353** * **2.314**/**4**^{½} = **0.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **2.1** + **2.353** * **2.314**/**4**^{½} = **4.822**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **4571.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**630** ± **2.576** * **4571.0**^{½}) / 2 = [**227.919**, **402.081**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**0.0**, **0.012**]	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-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **24.9** / **4** = **6.225**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**226.81** - **620.01**/**4**) / (**4**-1))^{½} = **4.892**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **6.225** - **2.353** * **4.892**/**4**^{½} = **0.47**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **6.225** + **2.353** * **4.892**/**4**^{½} = **11.98**	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 = **-0.947**	Sen's estimator of trend.
7	var(S) = **5297.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**630** ± **2.576** * **5297.0**^{½}) / 2 = [**221.259**, **408.741**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-1.465**, **-0.38**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

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

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **50.1** / **4** = **12.525**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**704.01** - **2510.01**/**4**) / (**4**-1))^{½} = **5.05**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **12.525** - **2.353** * **5.05**/**4**^{½} = **6.585**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **12.525** + **2.353** * **5.05**/**4**^{½} = **18.465**	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 = **-0.21**	Sen's estimator of trend.
7	var(S) = **4369.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**595** ± **2.576** * **4369.0**^{½}) / 2 = [**212.365**, **382.635**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-1.362**, **0.0**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Attachment C

Summary Table of Historical VOC Detections

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
1,4-dichlorobenzene	LPZ-6	10/07/2020		6.5	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	4/22/2021		6.4	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	10/05/2021		6.0	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	4/04/2022		2.2	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	10/05/2022		6.0	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	4/14/2023		5.3	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	10/18/2023		2.4	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	4/08/2024		9.2	1.0	ug/L
2-hexanone (mbk)	LPZ-6	4/08/2024		50.8	5.0	ug/L
Benzene	LPZ-6	4/16/2019		10.5	1.0	ug/L
Benzene	LPZ-6	10/07/2020		10.6	1.0	ug/L
Benzene	LPZ-6	4/22/2021		9.4	1.0	ug/L
Benzene	LPZ-6	10/05/2021		8.8	1.0	ug/L
Benzene	LPZ-6	4/04/2022		1.2	1.0	ug/L
Benzene	LPZ-6	10/05/2022		9.3	1.0	ug/L
Benzene	LPZ-6	4/14/2023		13.6	1.0	ug/L
Benzene	LPZ-6	4/08/2024		17.7	1.0	ug/L
Carbon disulfide	LPZ-6	10/05/2022		2	1	ug/L
Chlorobenzene	LPZ-6	4/16/2019		2.7	1.0	ug/L
Chlorobenzene	LPZ-6	10/07/2020		2.4	1.0	ug/L
Chlorobenzene	LPZ-6	4/22/2021		2.0	1.0	ug/L
Chlorobenzene	LPZ-6	10/05/2021		2.0	1.0	ug/L
Chlorobenzene	LPZ-6	10/05/2022		1.3	1.0	ug/L
Chlorobenzene	LPZ-6	4/14/2023		1.3	1.0	ug/L
Chlorobenzene	LPZ-6	4/08/2024		1.7	1.0	ug/L
Chloroethane	LPZ-6	4/22/2021		1.6	1.0	ug/L
Chloroethane	LPZ-6	10/18/2023		1.2	1.0	ug/L
Chloroethane	LPZ-6	4/08/2024		1.3	1.0	ug/L
Ethylbenzene	LPZ-6	4/16/2019		43.6	1.0	ug/L
Ethylbenzene	LPZ-6	10/07/2020		52.0	1.0	ug/L
Ethylbenzene	LPZ-6	4/22/2021		27.4	1.0	ug/L
Ethylbenzene	LPZ-6	10/05/2021		1.6	1.0	ug/L
Ethylbenzene	LPZ-6	4/04/2022		2.6	1.0	ug/L
Ethylbenzene	LPZ-6	10/05/2022		2.1	1.0	ug/L
Ethylbenzene	LPZ-6	4/14/2023		7.4	1.0	ug/L
Ethylbenzene	LPZ-6	4/08/2024		7.6	1.0	ug/L
Styrene	LPZ-6	4/08/2024		1.5	1.0	ug/L
Toluene	LPZ-6	10/07/2020		1.4	1.0	ug/L
Toluene	LPZ-6	10/05/2022		1.0	1.0	ug/L
Toluene	LPZ-6	4/08/2024		1.0	1.0	ug/L
Xylenes, total	LPZ-6	4/16/2019		9.5	2.0	ug/L
Xylenes, total	LPZ-6	10/07/2020		99.1	2.0	ug/L
Xylenes, total	LPZ-6	4/22/2021		27.5	2.0	ug/L
Xylenes, total	LPZ-6	10/05/2021		4.9	2.0	ug/L
Xylenes, total	LPZ-6	4/04/2022		2.4	2.0	ug/L
Xylenes, total	LPZ-6	10/05/2022		22.3	2.0	ug/L
Xylenes, total	LPZ-6	4/14/2023		22.6	2.0	ug/L
Xylenes, total	LPZ-6	10/18/2023		3.8	2.0	ug/L
Xylenes, total	LPZ-6	4/08/2024		95.0	2.0	ug/L
Acetone	MW-11	10/03/2017		20.6	10.0	ug/L
Acetone	MW-12	10/03/2017		19.6	10.0	ug/L
1,1-dichloroethylene	MW-15	4/08/2024		1	1	ug/L
1,4-dichlorobenzene	MW-15	4/06/2006		2.3	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/07/2006		2.4	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/14/2007		2.1	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/19/2007		2.3	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/25/2008		3.0	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/05/2008		3.0	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/06/2009		2.8	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/06/2009		2.8	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/20/2009		2.7	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/15/2010		2.5	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/15/2010		2.5	1.0	ug/L
1,4-dichlorobenzene	MW-15	6/10/2010		2.0	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/14/2010		1.9	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/14/2010		1.9	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/11/2011		3.5	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/11/2011		3.5	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/07/2011		3.9	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/01/2012		3.6	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/01/2013		1.8	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/09/2013		3.0	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/30/2014		3.1	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/19/2014		2.9	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/20/2015		2.4	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/05/2015		2.7	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

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
1,4-dichlorobenzene	MW-15	4/05/2016		2.2	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/05/2016		2.5	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/04/2017		2.0	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/03/2017		2.8	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/10/2018		2.6	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/07/2020		2.0	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/07/2020		1.9	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/22/2021		1.8	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/05/2021		2.1	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/04/2022		1.8	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/05/2022		2.2	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/14/2023		1.9	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/18/2023		1.7	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/08/2024		2.1	1.0	ug/L
Acetone	MW-15	9/19/2014		13.1	10.0	ug/L
Acetone	MW-15	4/20/2015		51.3	10.0	ug/L
Acetone	MW-15	10/05/2016		26.3	10.0	ug/L
Benzene	MW-15	4/06/2006		10.0	1.0	ug/L
Benzene	MW-15	9/07/2006		7.8	1.0	ug/L
Benzene	MW-15	3/14/2007		10.3	1.0	ug/L
Benzene	MW-15	9/19/2007		7.6	1.0	ug/L
Benzene	MW-15	3/25/2008		8.9	1.0	ug/L
Benzene	MW-15	9/05/2008		9.4	1.0	ug/L
Benzene	MW-15	3/06/2009		11.5	1.0	ug/L
Benzene	MW-15	10/20/2009		12.3	1.0	ug/L
Benzene	MW-15	3/15/2010		10.9	1.0	ug/L
Benzene	MW-15	3/15/2010		10.9	1.0	ug/L
Benzene	MW-15	6/10/2010		11.7	1.0	ug/L
Benzene	MW-15	9/14/2010		8.2	1.0	ug/L
Benzene	MW-15	9/14/2010		8.2	1.0	ug/L
Benzene	MW-15	3/11/2011		13.9	1.0	ug/L
Benzene	MW-15	3/11/2011		13.9	1.0	ug/L
Benzene	MW-15	9/07/2011		11.8	1.0	ug/L
Benzene	MW-15	9/01/2012		9.5	1.0	ug/L
Benzene	MW-15	4/01/2013		7.1	1.0	ug/L
Benzene	MW-15	9/09/2013		6.3	1.0	ug/L
Benzene	MW-15	3/30/2014		10.0	1.0	ug/L
Benzene	MW-15	9/19/2014		7.4	1.0	ug/L
Benzene	MW-15	4/20/2015		7.8	1.0	ug/L
Benzene	MW-15	10/05/2015		5.8	1.0	ug/L
Benzene	MW-15	4/05/2016		7.7	1.0	ug/L
Benzene	MW-15	10/05/2016		5.0	1.0	ug/L
Benzene	MW-15	4/04/2017		6.6	1.0	ug/L
Benzene	MW-15	10/03/2017		6.2	1.0	ug/L
Benzene	MW-15	4/10/2018		8.9	1.0	ug/L
Benzene	MW-15	10/12/2018		5.6	1.0	ug/L
Benzene	MW-15	4/16/2019		6.9	1.0	ug/L
Benzene	MW-15	9/30/2019		3.6	1.0	ug/L
Benzene	MW-15	4/07/2020		5.1	1.0	ug/L
Benzene	MW-15	10/07/2020		3.5	1.0	ug/L
Benzene	MW-15	4/22/2021		6.1	1.0	ug/L
Benzene	MW-15	10/05/2021		3.0	1.0	ug/L
Benzene	MW-15	4/04/2022		4.8	1.0	ug/L
Benzene	MW-15	10/05/2022		4.1	1.0	ug/L
Benzene	MW-15	4/14/2023		4.2	1.0	ug/L
Benzene	MW-15	10/18/2023		1.4	1.0	ug/L
Benzene	MW-15	4/08/2024		4.0	1.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-15	4/01/2013		10	8	ug/L
Bis(2-ethylhexyl) phthalate	MW-15	3/30/2014		85	8	ug/L
Bis(2-ethylhexyl) phthalate	MW-15	10/05/2015		10	10	ug/L
Bis(2-ethylhexyl) phthalate	MW-15	4/16/2019		10	6	ug/L
Chlorobenzene	MW-15	4/06/2006		7.70	1.00	ug/L
Chlorobenzene	MW-15	9/07/2006		9.10	1.00	ug/L
Chlorobenzene	MW-15	3/14/2007		7.80	1.00	ug/L
Chlorobenzene	MW-15	9/19/2007		7.00	1.00	ug/L
Chlorobenzene	MW-15	3/25/2008		6.90	1.00	ug/L
Chlorobenzene	MW-15	9/05/2008		9.00	1.00	ug/L
Chlorobenzene	MW-15	3/06/2009		9.69	1.00	ug/L
Chlorobenzene	MW-15	3/06/2009		9.60	1.00	ug/L
Chlorobenzene	MW-15	10/20/2009		10.80	1.00	ug/L
Chlorobenzene	MW-15	3/15/2010		9.50	1.00	ug/L
Chlorobenzene	MW-15	3/15/2010		9.50	1.00	ug/L
Chlorobenzene	MW-15	6/10/2010		9.40	1.00	ug/L
Chlorobenzene	MW-15	9/14/2010		8.60	1.00	ug/L
Chlorobenzene	MW-15	9/14/2010		8.60	1.00	ug/L
Chlorobenzene	MW-15	3/11/2011		17.40	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
Chlorobenzene	MW-15	3/11/2011		17.40	1.00	ug/L
Chlorobenzene	MW-15	9/07/2011		14.30	1.00	ug/L
Chlorobenzene	MW-15	9/01/2012		17.00	1.00	ug/L
Chlorobenzene	MW-15	4/01/2013		8.50	1.00	ug/L
Chlorobenzene	MW-15	9/09/2013		17.50	1.00	ug/L
Chlorobenzene	MW-15	3/30/2014		15.40	1.00	ug/L
Chlorobenzene	MW-15	9/19/2014		14.20	1.00	ug/L
Chlorobenzene	MW-15	4/20/2015		13.50	1.00	ug/L
Chlorobenzene	MW-15	10/05/2015		12.80	1.00	ug/L
Chlorobenzene	MW-15	4/05/2016		11.20	1.00	ug/L
Chlorobenzene	MW-15	10/05/2016		14.40	1.00	ug/L
Chlorobenzene	MW-15	4/04/2017		10.40	1.00	ug/L
Chlorobenzene	MW-15	10/03/2017		12.60	1.00	ug/L
Chlorobenzene	MW-15	4/10/2018		11.10	1.00	ug/L
Chlorobenzene	MW-15	10/12/2018		8.70	1.00	ug/L
Chlorobenzene	MW-15	4/16/2019		9.60	1.00	ug/L
Chlorobenzene	MW-15	9/30/2019		9.40	1.00	ug/L
Chlorobenzene	MW-15	4/07/2020		9.00	1.00	ug/L
Chlorobenzene	MW-15	10/07/2020		8.30	1.00	ug/L
Chlorobenzene	MW-15	4/22/2021		7.40	1.00	ug/L
Chlorobenzene	MW-15	10/05/2021		8.10	1.00	ug/L
Chlorobenzene	MW-15	4/04/2022		7.80	1.00	ug/L
Chlorobenzene	MW-15	10/05/2022		6.90	1.00	ug/L
Chlorobenzene	MW-15	4/14/2023		6.50	1.00	ug/L
Chlorobenzene	MW-15	10/18/2023		4.20	1.00	ug/L
Chlorobenzene	MW-15	4/08/2024		6.10	1.00	ug/L
Chloroethane	MW-15	4/06/2006		21.5	1.0	ug/L
Chloroethane	MW-15	9/07/2006		23.1	1.0	ug/L
Chloroethane	MW-15	3/14/2007		20.2	1.0	ug/L
Chloroethane	MW-15	9/19/2007		15.6	1.0	ug/L
Chloroethane	MW-15	3/25/2008		12.7	1.0	ug/L
Chloroethane	MW-15	9/05/2008		19.1	1.0	ug/L
Chloroethane	MW-15	3/06/2009		16.6	1.0	ug/L
Chloroethane	MW-15	3/06/2009		16.6	1.0	ug/L
Chloroethane	MW-15	10/20/2009		18.9	1.0	ug/L
Chloroethane	MW-15	3/15/2010		17.9	1.0	ug/L
Chloroethane	MW-15	3/15/2010		17.9	1.0	ug/L
Chloroethane	MW-15	6/10/2010		21.2	1.0	ug/L
Chloroethane	MW-15	9/14/2010		14.0	1.0	ug/L
Chloroethane	MW-15	9/14/2010		14.0	1.0	ug/L
Chloroethane	MW-15	3/11/2011		20.7	1.0	ug/L
Chloroethane	MW-15	3/11/2011		20.7	1.0	ug/L
Chloroethane	MW-15	9/07/2011		19.3	1.0	ug/L
Chloroethane	MW-15	9/01/2012		16.4	1.0	ug/L
Chloroethane	MW-15	4/01/2013		11.2	1.0	ug/L
Chloroethane	MW-15	9/09/2013		20.3	1.0	ug/L
Chloroethane	MW-15	3/30/2014		15.4	1.0	ug/L
Chloroethane	MW-15	9/19/2014		16.3	1.0	ug/L
Chloroethane	MW-15	4/20/2015		14.1	1.0	ug/L
Chloroethane	MW-15	10/05/2015		10.2	1.0	ug/L
Chloroethane	MW-15	4/05/2016		12.9	1.0	ug/L
Chloroethane	MW-15	10/05/2016		10.6	1.0	ug/L
Chloroethane	MW-15	4/04/2017		12.0	1.0	ug/L
Chloroethane	MW-15	10/03/2017		8.4	1.0	ug/L
Chloroethane	MW-15	4/10/2018		12.3	1.0	ug/L
Chloroethane	MW-15	10/12/2018		8.6	1.0	ug/L
Chloroethane	MW-15	4/16/2019		8.5	1.0	ug/L
Chloroethane	MW-15	9/30/2019		8.8	1.0	ug/L
Chloroethane	MW-15	4/07/2020		9.0	1.0	ug/L
Chloroethane	MW-15	10/07/2020		9.4	1.0	ug/L
Chloroethane	MW-15	4/22/2021		9.8	1.0	ug/L
Chloroethane	MW-15	10/05/2021		6.3	1.0	ug/L
Chloroethane	MW-15	4/04/2022		8.3	1.0	ug/L
Chloroethane	MW-15	10/05/2022		7.5	1.0	ug/L
Chloroethane	MW-15	4/14/2023		4.6	1.0	ug/L
Chloroethane	MW-15	10/18/2023		3.8	1.0	ug/L
Chloroethane	MW-15	4/08/2024		4.4	1.0	ug/L
Dichlorodifluoromethane	MW-15	3/30/2014		2.5	1.0	ug/L
Dichlorodifluoromethane	MW-15	4/04/2017		1.0	1.0	ug/L
Ethylbenzene	MW-15	4/06/2006		37.2	1.0	ug/L
Ethylbenzene	MW-15	9/07/2006		16.7	1.0	ug/L
Ethylbenzene	MW-15	3/14/2007		31.2	1.0	ug/L
Ethylbenzene	MW-15	9/19/2007		9.7	1.0	ug/L
Ethylbenzene	MW-15	3/25/2008		31.2	1.0	ug/L
Ethylbenzene	MW-15	9/05/2008		22.3	1.0	ug/L
Ethylbenzene	MW-15	3/06/2009		67.6	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

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Ethylbenzene	MW-15	3/06/2009		67.6	1.0	ug/L
Ethylbenzene	MW-15	10/20/2009		83.0	1.0	ug/L
Ethylbenzene	MW-15	3/15/2010		60.6	1.0	ug/L
Ethylbenzene	MW-15	3/15/2010		60.6	1.0	ug/L
Ethylbenzene	MW-15	6/10/2010		16.2	1.0	ug/L
Ethylbenzene	MW-15	9/14/2010		22.4	1.0	ug/L
Ethylbenzene	MW-15	9/14/2010		22.4	1.0	ug/L
Ethylbenzene	MW-15	3/11/2011		90.8	1.0	ug/L
Ethylbenzene	MW-15	3/11/2011		90.8	1.0	ug/L
Ethylbenzene	MW-15	9/07/2011		21.8	1.0	ug/L
Ethylbenzene	MW-15	9/01/2012		19.3	1.0	ug/L
Ethylbenzene	MW-15	4/01/2013		31.6	1.0	ug/L
Ethylbenzene	MW-15	9/09/2013		9.0	1.0	ug/L
Ethylbenzene	MW-15	3/30/2014		39.0	1.0	ug/L
Ethylbenzene	MW-15	9/19/2014		15.3	1.0	ug/L
Ethylbenzene	MW-15	4/20/2015		6.5	1.0	ug/L
Ethylbenzene	MW-15	4/05/2016		10.5	1.0	ug/L
Ethylbenzene	MW-15	4/04/2017		4.9	1.0	ug/L
Ethylbenzene	MW-15	4/10/2018		5.1	1.0	ug/L
Toluene	MW-15	4/06/2006		1.1	1.0	ug/L
Toluene	MW-15	9/05/2008		1.0	1.0	ug/L
Toluene	MW-15	3/06/2009		2.6	1.0	ug/L
Toluene	MW-15	10/20/2009		3.3	1.0	ug/L
Toluene	MW-15	3/15/2010		1.1	1.0	ug/L
Toluene	MW-15	3/15/2010		1.1	1.0	ug/L
Toluene	MW-15	6/10/2010		1.2	1.0	ug/L
Toluene	MW-15	3/11/2011		1.8	1.0	ug/L
Toluene	MW-15	3/11/2011		1.8	1.0	ug/L
Xylenes, total	MW-15	4/06/2006		188.0	1.0	ug/L
Xylenes, total	MW-15	9/07/2006		84.6	1.0	ug/L
Xylenes, total	MW-15	3/14/2007		126.0	1.0	ug/L
Xylenes, total	MW-15	9/19/2007		50.8	1.0	ug/L
Xylenes, total	MW-15	3/25/2008		150.0	1.0	ug/L
Xylenes, total	MW-15	9/05/2008		91.4	1.0	ug/L
Xylenes, total	MW-15	3/06/2009		342.0	1.0	ug/L
Xylenes, total	MW-15	3/06/2009		342.0	2.0	ug/L
Xylenes, total	MW-15	10/20/2009		430.0	1.0	ug/L
Xylenes, total	MW-15	3/15/2010		302.0	1.0	ug/L
Xylenes, total	MW-15	3/15/2010		302.0	2.0	ug/L
Xylenes, total	MW-15	6/10/2010		117.0	2.0	ug/L
Xylenes, total	MW-15	9/14/2010		116.0	1.0	ug/L
Xylenes, total	MW-15	9/14/2010		116.0	2.0	ug/L
Xylenes, total	MW-15	3/11/2011		444.0	2.0	ug/L
Xylenes, total	MW-15	3/11/2011		444.0	1.0	ug/L
Xylenes, total	MW-15	9/07/2011		84.4	1.0	ug/L
Xylenes, total	MW-15	9/01/2012		93.1	2.0	ug/L
Xylenes, total	MW-15	4/01/2013		105.0	2.0	ug/L
Xylenes, total	MW-15	9/09/2013		70.0	2.0	ug/L
Xylenes, total	MW-15	3/30/2014		132.0	2.0	ug/L
Xylenes, total	MW-15	9/19/2014		89.8	2.0	ug/L
Xylenes, total	MW-15	4/20/2015		58.0	2.0	ug/L
Xylenes, total	MW-15	10/05/2015		11.8	2.0	ug/L
Xylenes, total	MW-15	4/05/2016		59.2	2.0	ug/L
Xylenes, total	MW-15	10/05/2016		19.2	2.0	ug/L
Xylenes, total	MW-15	4/04/2017		26.1	2.0	ug/L
Xylenes, total	MW-15	10/03/2017		6.3	2.0	ug/L
Xylenes, total	MW-15	4/10/2018		56.2	2.0	ug/L
Xylenes, total	MW-15	10/12/2018		3.5	2.0	ug/L
Xylenes, total	MW-15	4/16/2019		4.3	2.0	ug/L
Xylenes, total	MW-15	9/30/2019		3.1	2.0	ug/L
Xylenes, total	MW-15	4/07/2020		4.0	2.0	ug/L
Xylenes, total	MW-15	10/07/2020		10.3	2.0	ug/L
Xylenes, total	MW-15	4/22/2021		2.3	2.0	ug/L
Acetone	MW-16	10/03/2017		27.9	10.0	ug/L
Acetone	MW-20	10/03/2017		22.4	10.0	ug/L
Acetone	MW-22	10/03/2017		28.8	10.0	ug/L
1,1-dichloroethane	MW-6	9/09/2013		2.5	1.0	ug/L
Acetone	MW-6	10/03/2017		16.2	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-6	3/30/2014		36	8	ug/L
Bis(2-ethylhexyl) phthalate	MW-6	10/03/2017		10	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-6	4/08/2024		32	6	ug/L
Dichlorodifluoromethane	MW-6	3/30/2014		3.5	1.0	ug/L
Dichlorodifluoromethane	MW-6	9/19/2014		1.3	1.0	ug/L
Dichlorodifluoromethane	MW-6	4/20/2015		1.0	1.0	ug/L
Dichlorodifluoromethane	MW-6	10/05/2016		1.0	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 D

Assessment Statistics for Detected VOCs

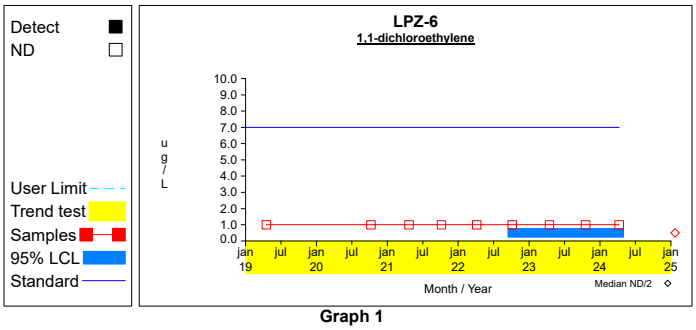
Table 1

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

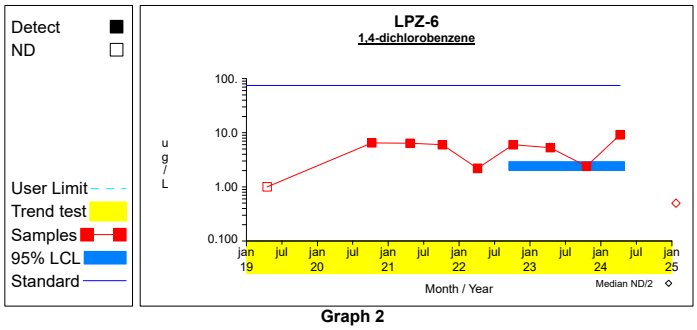
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
1,1-dichloroethylene	ug/L	LPZ-6	4	0.500	0.000	1.176	0.500	0.500	7.000		
1,4-dichlorobenzene	ug/L	LPZ-6	4	5.725	2.792	1.176	2.441	9.009	75.000		
Benzene	ug/L	LPZ-6	4	10.275	7.364	1.176	1.613	18.937	5.000		
Bis(2-ethylhexyl) phthalate	ug/L	LPZ-6	0								*
Chlorobenzene	ug/L	LPZ-6	4	1.200	0.503	1.176	0.608	1.792	100.000		
Chloroethane	ug/L	LPZ-6	4	0.875	0.435	1.176	0.363	1.387	2800.000		
Ethylbenzene	ug/L	LPZ-6	4	4.400	3.640	1.176	0.119	8.681	700.000		
Styrene	ug/L	LPZ-6	4	0.750	0.500	1.176	0.162	1.338	100.000		
Toluene	ug/L	LPZ-6	4	0.750	0.289	1.176	0.410	1.090	1000.000		
Xylenes, total	ug/L	LPZ-6	4	35.925	40.353	1.176	0.000	83.392	10000.000		
1,1-dichloroethylene	ug/L	MW-15	4	0.625	0.250	1.176	0.331	0.919	7.000		
1,4-dichlorobenzene	ug/L	MW-15	4	1.975	0.222	1.176	1.714	2.236	75.000	dec	
Benzene	ug/L	MW-15	4	3.425	1.352	1.176	1.834	5.016	5.000	dec	
Bis(2-ethylhexyl) phthalate	ug/L	MW-15	4	5.500	3.000	1.176	1.971	9.029	6.000		
Chlorobenzene	ug/L	MW-15	4	5.925	1.195	1.176	4.519	7.331	100.000		
Chloroethane	ug/L	MW-15	4	5.075	1.652	1.176	3.132	7.018	2800.000	dec	
Ethylbenzene	ug/L	MW-15	4	0.500	0.000	1.176	0.500	0.500	700.000	dec	
Styrene	ug/L	MW-15	4	0.500	0.000	1.176	0.500	0.500	100.000		
Toluene	ug/L	MW-15	4	0.500	0.000	1.176	0.500	0.500	1000.000		
Xylenes, total	ug/L	MW-15	4	1.000	0.000	1.176	1.000	1.000	10000.000	dec	
1,1-dichloroethylene	ug/L	MW-6	4	0.500	0.000	1.176	0.500	0.500	7.000		
1,4-dichlorobenzene	ug/L	MW-6	4	0.500	0.000	1.176	0.500	0.500	75.000		
Benzene	ug/L	MW-6	4	0.500	0.000	1.176	0.500	0.500	5.000		
Bis(2-ethylhexyl) phthalate	ug/L	MW-6	4	11.000	14.000	1.176	0.000	27.468	6.000		
Chlorobenzene	ug/L	MW-6	4	0.500	0.000	1.176	0.500	0.500	100.000		
Chloroethane	ug/L	MW-6	4	0.500	0.000	1.176	0.500	0.500	2800.000		
Ethylbenzene	ug/L	MW-6	4	0.500	0.000	1.176	0.500	0.500	700.000		
Styrene	ug/L	MW-6	4	0.500	0.000	1.176	0.500	0.500	100.000		
Toluene	ug/L	MW-6	4	0.500	0.000	1.176	0.500	0.500	1000.000		
Xylenes, total	ug/L	MW-6	4	1.000	0.000	1.176	1.000	1.000	10000.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

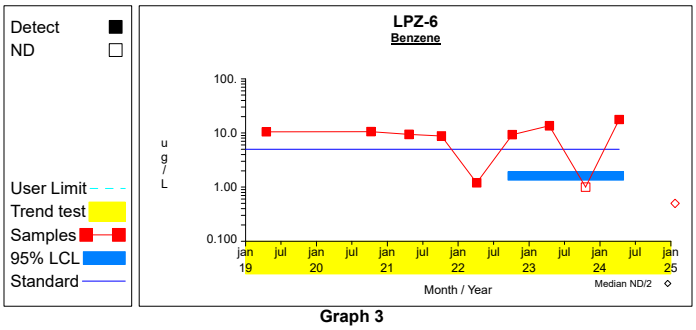
Confidence Limits (Assessment)



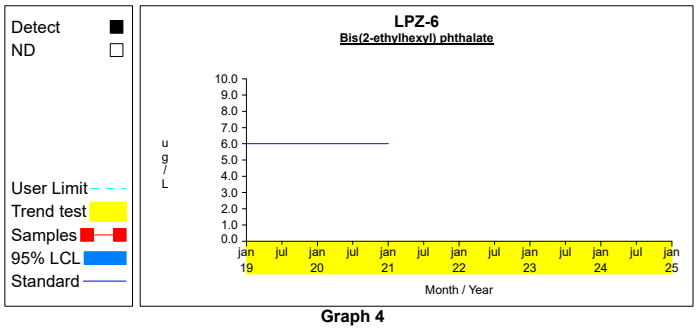
Graph 1



Graph 2



Graph 3



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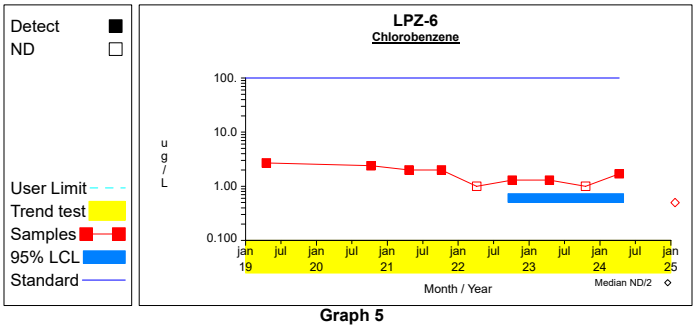

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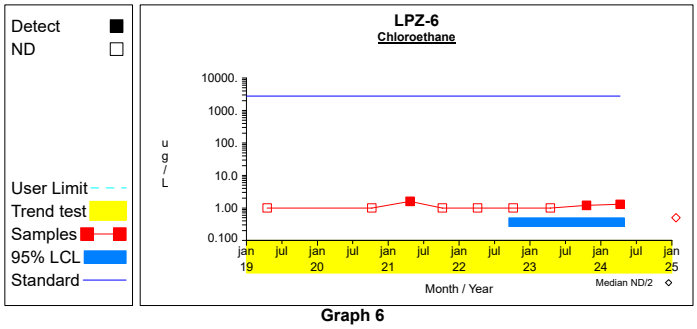

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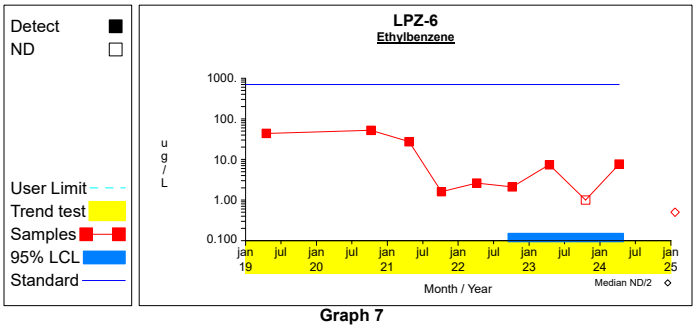
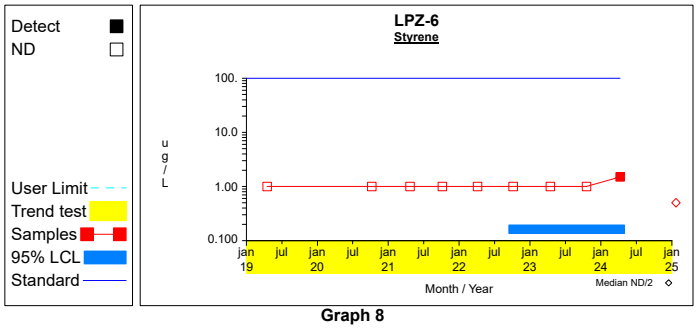
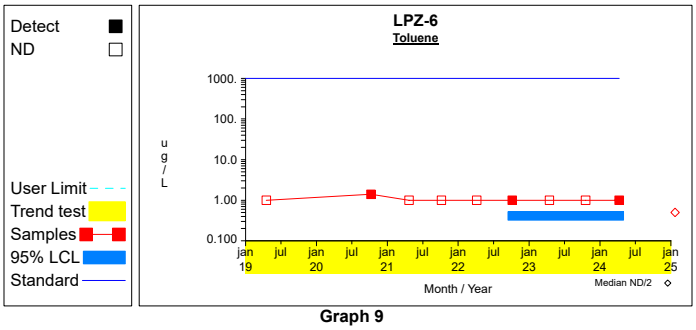


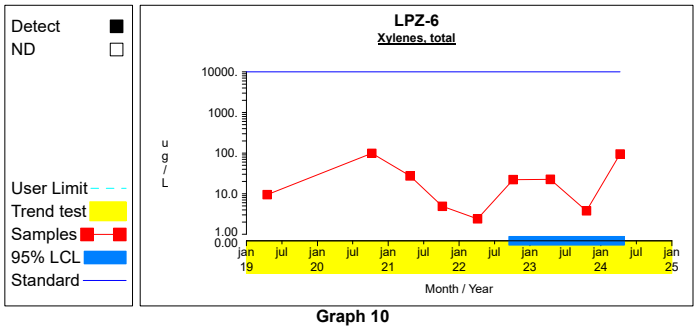
Graph 7



Graph 8



Graph 9



Graph 10

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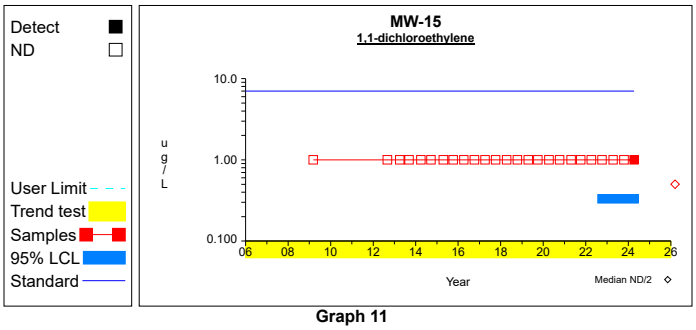
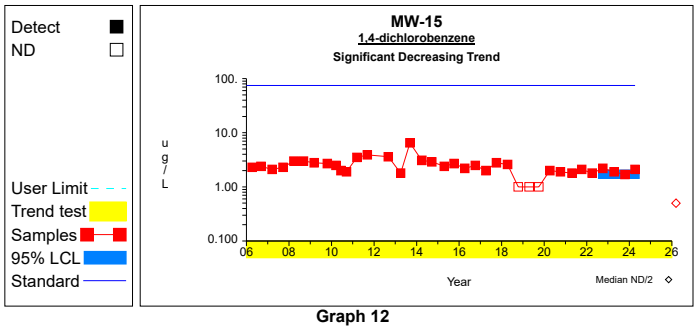
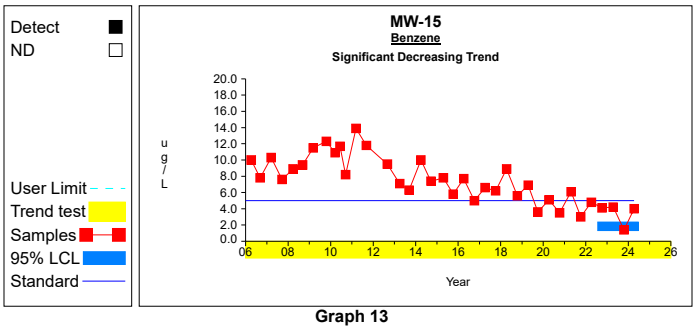
Confidence Limits (Assessment)



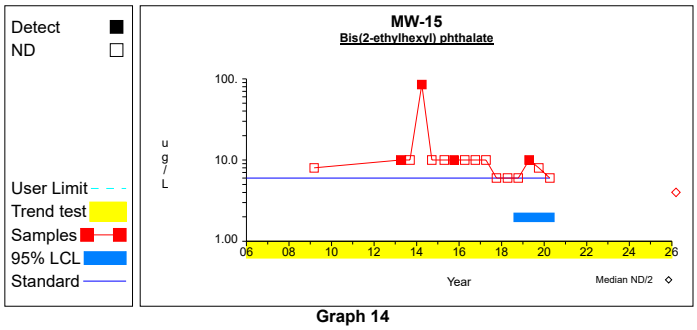
Graph 11



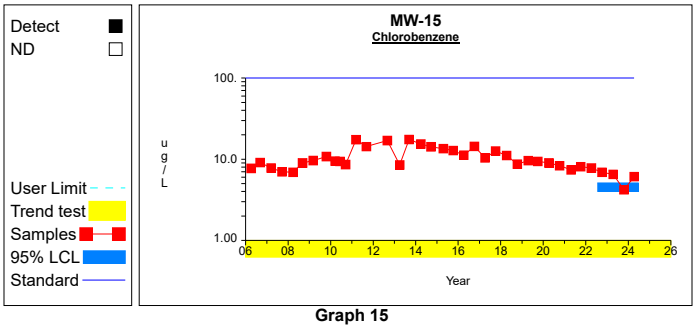
Graph 12



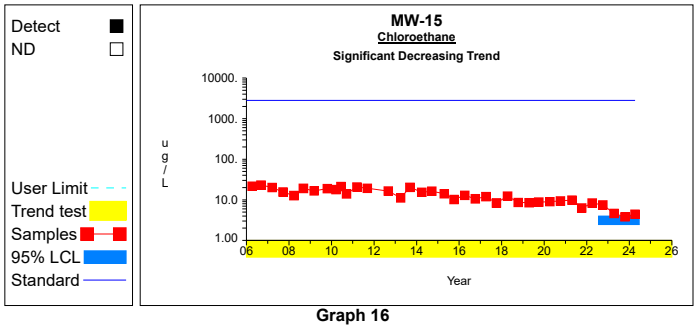
Graph 13



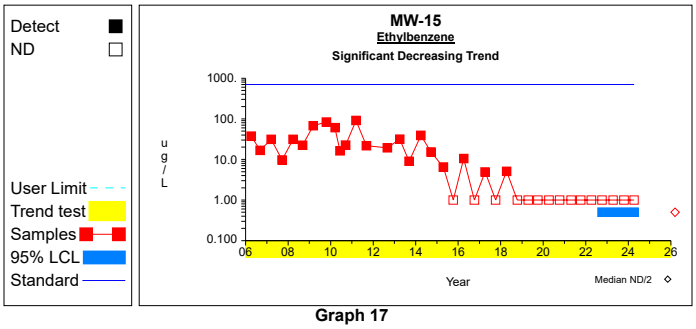
Graph 14



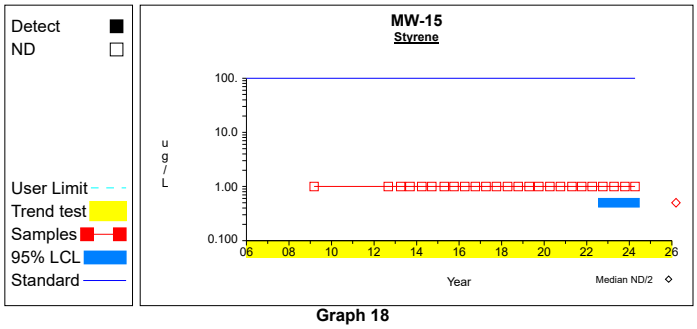
Graph 15



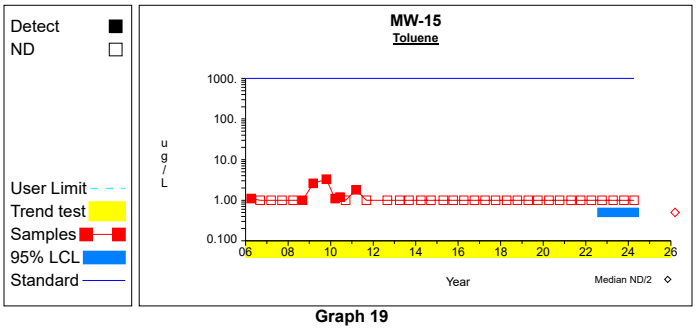
Graph 16



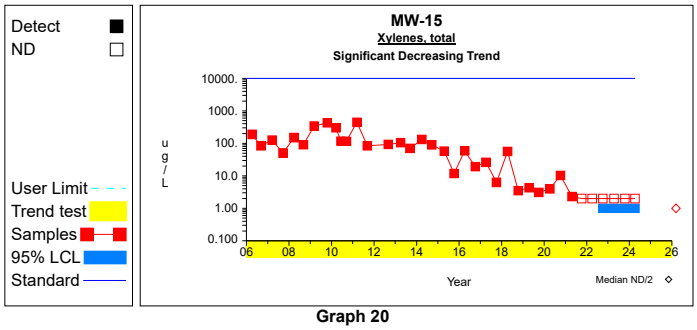
Graph 17



Graph 18



Graph 19



Graph 20

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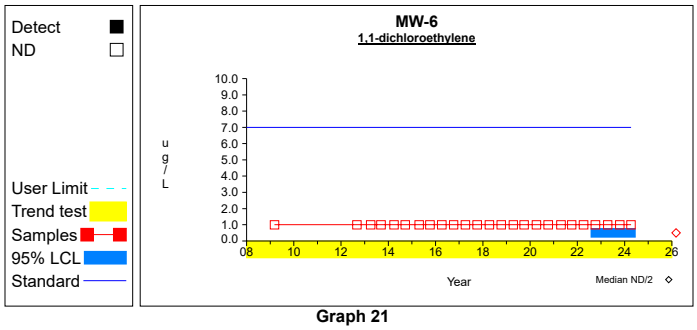
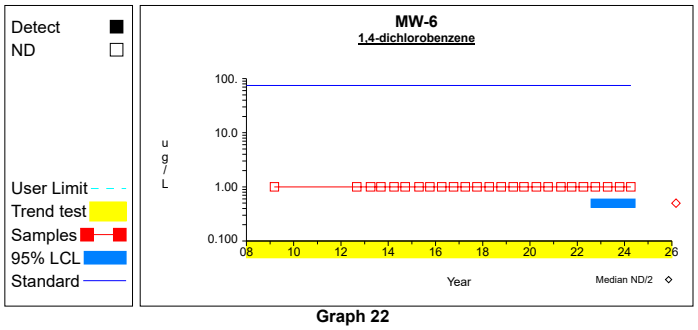
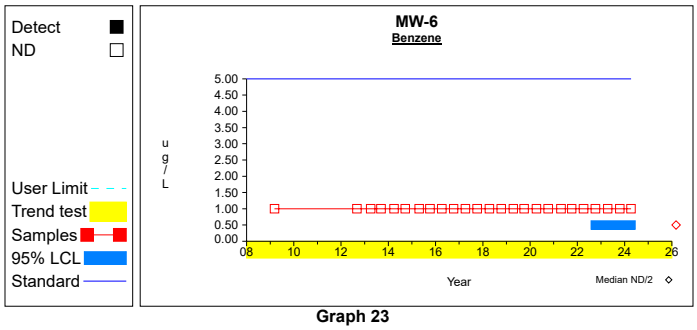
Confidence Limits (Assessment)



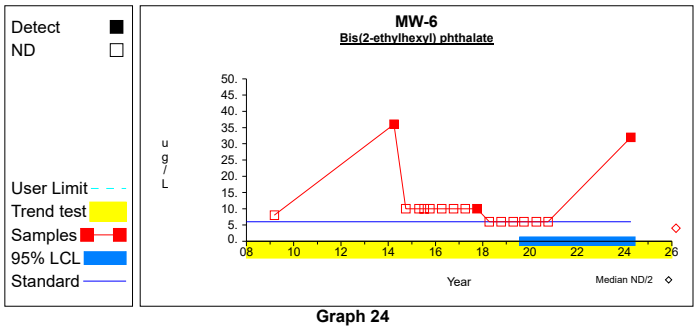
Graph 21



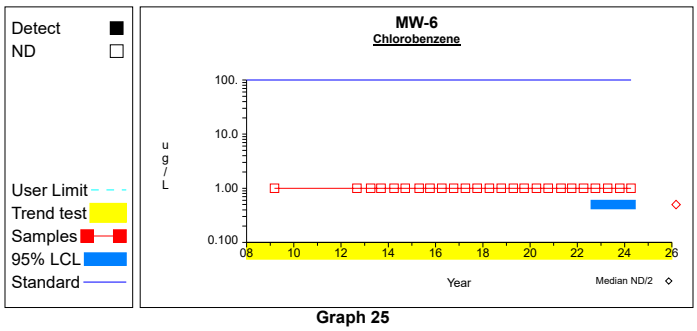
Graph 22



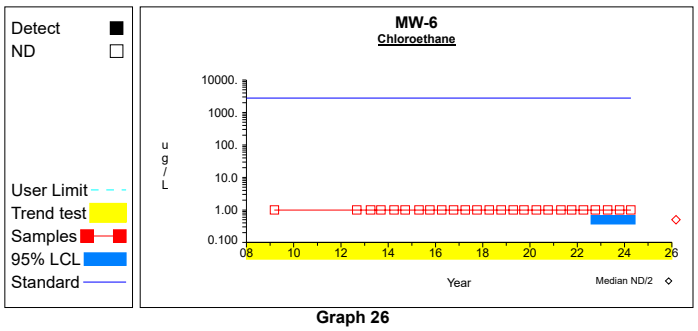
Graph 23



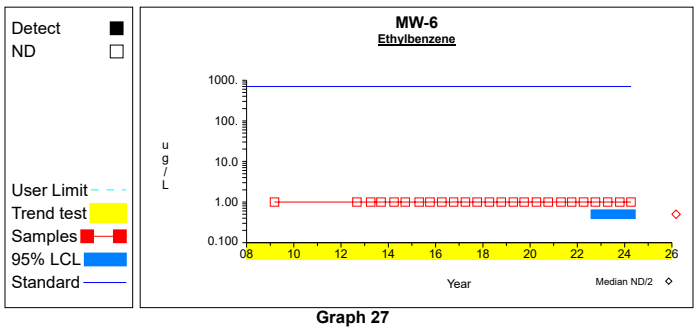
Graph 24



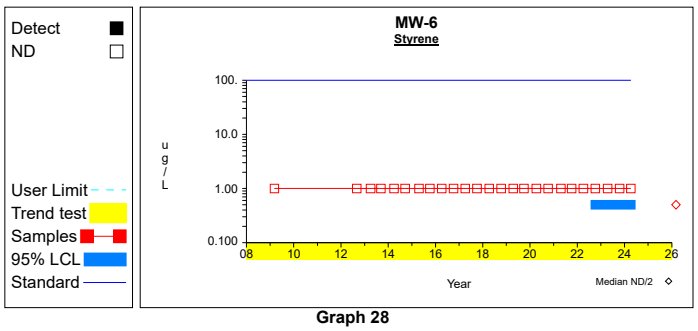
Graph 25



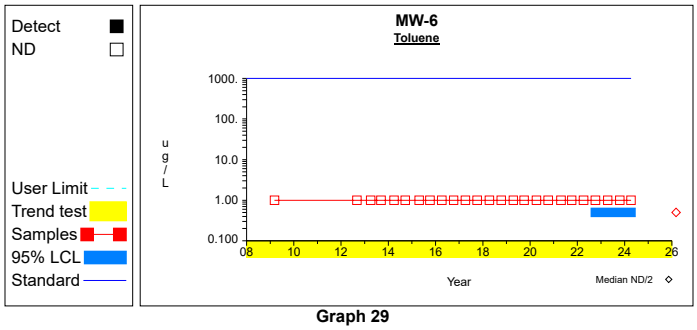
Graph 26



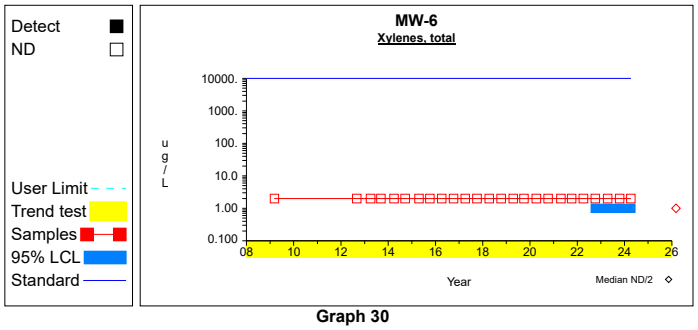
Graph 27



Graph 28



Graph 29



Graph 30

Prepared by: Otter Creek Environmental

Worksheet 6 - Assessment Monitoring
1,1-dichloroethylene (ug/L) at LPZ-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.0** / **4** = **0.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.0** - **4.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.5** - **2.353** * **0.0**/**4**^{½} = **0.5**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.5** + **2.353** * **0.0**/**4**^{½} = **0.5**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **9** * (**9**-1) / 2 = **36**	Number of sample pairs during trend detection period.
6	S = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N**' ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**36** ± **2.576** * **0.0**^{½}) / 2 = [**18.0**, **18.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
1,4-dichlorobenzene (ug/L) at LPZ-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **22.9** / **4** = **5.725**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**154.49** - **524.41**/**4**) / (**4**-1))^{½} = **2.792**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **5.725** - **2.353** * **2.792**/**4**^{½} = **2.441**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **5.725** + **2.353** * **2.792**/**4**^{½} = **9.009**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **9** * (**9**-1) / 2 = **36**	Number of sample pairs during trend detection period.
6	S = **0.065**	Sen's estimator of trend.
7	var(S) = **91.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**36** ± **2.576** * **91.0**^{½}) / 2 = [**5.713**, **30.287**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-2.089**, **2.952**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Benzene (ug/L) at LPZ-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **41.1** / **4** = **10.275**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**584.99** - **1689.21**/**4**) / (**4**-1))^{½} = **7.364**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **10.275** - **2.353** * **7.364**/**4**^{½} = **1.613**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **10.275** + **2.353** * **7.364**/**4**^{½} = **18.937**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **9** * (**9**-1) / 2 = **36**	Number of sample pairs during trend detection period.
6	S = **-0.207**	Sen's estimator of trend.
7	var(S) = **92.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**36** ± **2.576** * **92.0**^{½}) / 2 = [**5.646**, **30.354**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-4.868**, **4.658**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Bis(2-ethylhexyl) phthalate (ug/L) at LPZ-6

Insufficient data to perform analysis

Worksheet 6 - Assessment Monitoring
Chlorobenzene (ug/L) at LPZ-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **4.8** / **4** = **1.2**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**6.52** - **23.04**/**4**) / (**4**-1))^{½} = **0.503**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **1.2** - **2.353** * **0.503**/**4**^{½} = **0.608**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **1.2** + **2.353** * **0.503**/**4**^{½} = **1.792**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **9** * (**9**-1) / 2 = **36**	Number of sample pairs during trend detection period.
6	S = **-0.378**	Sen's estimator of trend.
7	var(S) = **89.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**36** ± **2.576** * **89.0**^{½}) / 2 = [**5.849**, **30.151**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-0.747**, **0.04**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Chloroethane (ug/L) at LPZ-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **3.5** / **4** = **0.875**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**3.63** - **12.25/4**) / (**4**-1))^{½} = **0.435**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS/N**^{½} = **0.875** - **2.353** * **0.435/4**^{½} = **0.363**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS/N**^{½} = **0.875** + **2.353** * **0.435/4**^{½} = **1.387**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **9** * (**9**-1) / 2 = **36**	Number of sample pairs during trend detection period.
6	S = **0.0**	Sen's estimator of trend.
7	var(S) = **63.667**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**36** ± **2.576** * **63.667**^{½}) / 2 = [**7.723**, **28.277**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**0.0**, **0.359**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Ethylbenzene (ug/L) at LPZ-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **17.6** / **4** = **4.4**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**117.18** - **309.76**/**4**) / (**4**-1))^{½} = **3.64**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **4.4** - **2.353** * **3.64**/**4**^{½} = **0.119**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **4.4** + **2.353** * **3.64**/**4**^{½} = **8.681**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **9** * (**9**-1) / 2 = **36**	Number of sample pairs during trend detection period.
6	S = **-8.548**	Sen's estimator of trend.
7	var(S) = **92.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**36** ± **2.576** * **92.0**^{½}) / 2 = [**5.646**, **30.354**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-25.402**, **2.895**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Styrene (ug/L) at LPZ-6

Step	Equation	Description
1	$\bar{X}$ = **sum[X]** / **N** = **3.0** / **4** = **0.75**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**3.0** - **9.0**/**4**) / (**4**-1))^{½} = **0.5**	Compute sd of the last 4 measurements.
3	LCL = $\bar{\mathbf{X}}$ - **tS**/**N**^{½} = **0.75** - **2.353** * **0.5**/**4**^{½} = **0.162**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\bar{\mathbf{X}}$ + **tS**/**N**^{½} = **0.75** + **2.353** * **0.5**/**4**^{½} = **1.338**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **9** * (**9**-1) / 2 = **36**	Number of sample pairs during trend detection period.
6	S = **0.0**	Sen's estimator of trend.
7	var(S) = **26.667**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**36** ± **2.576** * **26.667**^{½}) / 2 = [**11.349**, **24.651**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Toluene (ug/L) at LPZ-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **3.0** / **4** = **0.75**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**2.5** - **9.0**/**4**) / (**4**-1))^{½} = **0.289**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.75** - **2.353** * **0.289**/**4**^{½} = **0.41**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.75** + **2.353** * **0.289**/**4**^{½} = **1.09**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **9** * (**9**-1) / 2 = **36**	Number of sample pairs during trend detection period.
6	S = **0.0**	Sen's estimator of trend.
7	var(S) = **62.667**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**36** ± **2.576** * **62.667**^{½}) / 2 = [**7.804**, **28.196**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-0.22**, **0.175**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Xylenes, total (ug/L) at LPZ-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **143.7** / **4** = **35.925**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**10047.49** - **20649.69**/**4**) / (**4**-1))^{½} = **40.353**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **35.925** - **2.353** * **40.353**/**4**^{½} = **0.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **35.925** + **2.353** * **40.353**/**4**^{½} = **83.392**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **9** * (**9**-1) / 2 = **36**	Number of sample pairs during trend detection period.
6	S = **-0.855**	Sen's estimator of trend.
7	var(S) = **92.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**36** ± **2.576** * **92.0**^{½}) / 2 = [**5.646**, **30.354**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-37.341**, **37.174**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
1,1-dichloroethylene (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.5** / **4** = **0.625**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.75** - **6.25**/**4**) / (**4**-1))^{½} = **0.25**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.625** - **2.353** * **0.25**/**4**^{½} = **0.331**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.625** + **2.353** * **0.25**/**4**^{½} = **0.919**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **208.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **208.0**^{½}) / 2 = [**131.424**, **168.576**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
1,4-dichlorobenzene (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **7.9** / **4** = **1.975**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**15.75** - **62.41**/**4**) / (**4**-1))^{½} = **0.222**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **1.975** - **2.353** * **0.222**/**4**^{½} = **1.714**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **1.975** + **2.353** * **0.222**/**4**^{½} = **2.236**	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 = **-0.057**	Sen's estimator of trend.
7	var(S) = **5820.667**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**666** ± **2.576** * **5820.667**^{½}) / 2 = [**234.734**, **431.266**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-0.13**, **-0.008**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
Benzene (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **13.7** / **4** = **3.425**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**52.41** - **187.69**/**4**) / (**4**-1))^{½} = **1.352**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **3.425** - **2.353** * **1.352**/**4**^{½} = **1.834**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **3.425** + **2.353** * **1.352**/**4**^{½} = **5.016**	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 = **-0.432**	Sen's estimator of trend.
7	var(S) = **5843.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**666** ± **2.576** * **5843.0**^{½}) / 2 = [**234.546**, **431.454**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-0.586**, **-0.283**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
Bis(2-ethylhexyl) phthalate (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **22.0** / **4** = **5.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**148.0** - **484.0**/**4**) / (**4**-1))^{½} = **3.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **5.5** - **2.353** * **3.0**/**4**^{½} = **1.971**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **5.5** + **2.353** * **3.0**/**4**^{½} = **9.029**	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	var(S) = **277.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**120** ± **2.576** * **277.0**^{½}) / 2 = [**38.563**, **81.437**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Chlorobenzene (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **23.7** / **4** = **5.925**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**144.71** - **561.69**/**4**) / (**4**-1))^{½} = **1.195**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **5.925** - **2.353** * **1.195**/**4**^{½} = **4.519**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **5.925** + **2.353** * **1.195**/**4**^{½} = **7.331**	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 = **-0.186**	Sen's estimator of trend.
7	var(S) = **5842.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**666** ± **2.576** * **5842.0**^{½}) / 2 = [**234.554**, **431.446**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-0.664**, **0.048**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Chloroethane (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **20.3** / **4** = **5.075**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**111.21** - **412.09**/**4**) / (**4**-1))^{½} = **1.652**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **5.075** - **2.353** * **1.652**/**4**^{½} = **3.132**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **5.075** + **2.353** * **1.652**/**4**^{½} = **7.018**	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 = **-0.898**	Sen's estimator of trend.
7	var(S) = **5846.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**666** ± **2.576** * **5846.0**^{½}) / 2 = [**234.521**, **431.479**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-1.112**, **-0.711**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
Ethylbenzene (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.0** / **4** = **0.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))$^{1/2}$ = ((**1.0** - **4.0**/**4**) / (**4**-1))$^{1/2}$ = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{1/2}$ = **0.5** - **2.353** * **0.0**/**4**$^{1/2}$ = **0.5**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{1/2}$ = **0.5** + **2.353** * **0.0**/**4**$^{1/2}$ = **0.5**	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 = **-1.919**	Sen's estimator of trend.
7	var(S) = **5436.667**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{1/2}$) / 2 = (**666** ± **2.576** * **5436.667**$^{1/2}$) / 2 = [**238.031**, **427.969**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-2.711**, **-1.001**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
Styrene (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.0** / **4** = **0.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.0** - **4.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.5** - **2.353** * **0.0**/**4**^{½} = **0.5**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.5** + **2.353** * **0.0**/**4**^{½} = **0.5**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **0.0**^{½}) / 2 = [**150.0**, **150.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Toluene (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.0** / **4** = **0.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.0** - **4.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.5** - **2.353** * **0.0**/**4**^{½} = **0.5**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.5** + **2.353** * **0.0**/**4**^{½} = **0.5**	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	var(S) = **2703.333**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**666** ± **2.576** * **2703.333**^{½}) / 2 = [**266.032**, **399.968**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Xylenes, total (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **4.0** / **4** = **1.0**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**4.0** - **16.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **1.0** - **2.353** * **0.0**/**4**^{½} = **1.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **1.0** + **2.353** * **0.0**/**4**^{½} = **1.0**	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 = **-9.396**	Sen's estimator of trend.
7	var(S) = **5817.667**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**666** ± **2.576** * **5817.667**^{½}) / 2 = [**234.76**, **431.24**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-13.083**, **-5.758**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
1,1-dichloroethylene (ug/L) at MW-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.0** / **4** = **0.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.0** - **4.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.5** - **2.353** * **0.0**/**4**^{½} = **0.5**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.5** + **2.353** * **0.0**/**4**^{½} = **0.5**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **0.0**^{½}) / 2 = [**150.0**, **150.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
1,4-dichlorobenzene (ug/L) at MW-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.0** / **4** = **0.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.0** - **4.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.5** - **2.353** * **0.0**/**4**^{½} = **0.5**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.5** + **2.353** * **0.0**/**4**^{½} = **0.5**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **0.0**^{½}) / 2 = [**150.0**, **150.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Benzene (ug/L) at MW-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.0** / **4** = **0.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.0** - **4.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.5** - **2.353** * **0.0**/**4**^{½} = **0.5**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.5** + **2.353** * **0.0**/**4**^{½} = **0.5**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **0.0**^{½}) / 2 = [**150.0**, **150.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Bis(2-ethylhexyl) phthalate (ug/L) at MW-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **44.0** / **4** = **11.0**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1072.0** - **1936.0**/**4**) / (**4**-1))^{½} = **14.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **11.0** - **2.353** * **14.0**/**4**^{½} = **0.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **11.0** + **2.353** * **14.0**/**4**^{½} = **27.468**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **17** * (**17**-1) / 2 = **136**	Number of sample pairs during trend detection period.
6	S = **0.0**	Sen's estimator of trend.
7	var(S) = **255.667**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**136** ± **2.576** * **255.667**^{½}) / 2 = [**47.405**, **88.595**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Chlorobenzene (ug/L) at MW-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.0** / **4** = **0.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.0** - **4.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.5** - **2.353** * **0.0**/**4**^{½} = **0.5**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.5** + **2.353** * **0.0**/**4**^{½} = **0.5**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **0.0**^{½}) / 2 = [**150.0**, **150.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Chloroethane (ug/L) at MW-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.0** / **4** = **0.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.0** - **4.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.5** - **2.353** * **0.0**/**4**^{½} = **0.5**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.5** + **2.353** * **0.0**/**4**^{½} = **0.5**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **0.0**^{½}) / 2 = [**150.0**, **150.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Ethylbenzene (ug/L) at MW-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.0** / **4** = **0.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.0** - **4.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.5** - **2.353** * **0.0**/**4**^{½} = **0.5**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.5** + **2.353** * **0.0**/**4**^{½} = **0.5**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **0.0**^{½}) / 2 = [**150.0**, **150.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Styrene (ug/L) at MW-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.0** / **4** = **0.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.0** - **4.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.5** - **2.353** * **0.0**/**4**^{½} = **0.5**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.5** + **2.353** * **0.0**/**4**^{½} = **0.5**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **0.0**^{½}) / 2 = [**150.0**, **150.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Toluene (ug/L) at MW-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **2.0** / **4** = **0.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.0** - **4.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.5** - **2.353** * **0.0**/**4**^{½} = **0.5**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.5** + **2.353** * **0.0**/**4**^{½} = **0.5**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **0.0**^{½}) / 2 = [**150.0**, **150.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Xylenes, total (ug/L) at MW-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **4.0** / **4** = **1.0**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**4.0** - **16.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **1.0** - **2.353** * **0.0**/**4**^{½} = **1.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **1.0** + **2.353** * **0.0**/**4**^{½} = **1.0**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **0.0**^{½}) / 2 = [**150.0**, **150.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**0.0**, **0.0**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Appendix B.2 – Fall Statistical Evaluation Report

GROUND WATER STATISTICS

FOR THE

JONES COUNTY SANITARY LANDFILL

Second Semi-Annual Monitoring Event in 2024

Prepared for:
Jones County Solid Waste Management
13859 Edinburgh Road
Anamosa, IA 52205

Prepared by:
Jeffrey A. Holmgren
Otter Creek Environmental Services, LLC
40W565 Foxwick Court
Elgin, IL 60124
(847) 464-1355

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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 2024 at the Jones County Sanitary Landfill in Anamosa, 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 Jones County Sanitary 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 Jones County Landfill includes upgradient well MW-12 and downgradient detection sample points MW-11, MW-15, MW-16, MW-20, MW-22, and MW-6. 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	*trans*-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	*cis*-1,2-Dichloroethene	1,1,2,2-Tetrachloroethane
Bromoform	*trans*-1,2-Dichloroethene	Tetrachloroethene
Carbon disulfide	1,2-Dichloropropane	Toluene
Carbon tetrachloride	*cis*-1,3-Dichloropropene	1,1,1-Trichloroethane
Chlorobenzene	*trans*-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 2024 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 Jones County Sanitary 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 eight samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit. As an alternative to nonparametric prediction limits, Poisson prediction limits can be used for small data sets where the detection frequency is less than 25%.

Results of the Interwell Statistics

The background data used in this statistical analysis includes the ground water data collected from ground water well MW-12 during the period from 2015 through the current data. A summary of the background data from monitoring well MW-12 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-11, MW-15, MW-16, MW-20, MW-22, and MW-6, 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 2024

Well	Trace Metal	Result	Prediction Limit	Prediction Limit Type	Verified or Awaiting Verification
MW-15	Arsenic, µg/L	209	4.0000	Nonparametric	Verified
	Barium, µg/L	1200	315.3650	Normal	Verified
	Cobalt, µg/L	15.5	2.6000	Nonparametric	Verified
	Nickel, µg/L	85.1	13.4000	Nonparametric	Verified
MW-6	Barium, µg/L	519	315.3650	Normal	Awaiting Verification

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. Table 8 is a historical summary of the data at those wells that have indicated an exceedance. 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 8% 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. 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-15 (144.266 µg/L) exceeds the USEPA MCL of 10 µg/L. The 95% LCL for cobalt at MW-15 (13.133 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L. The calculated LCLs for the remainder of the verified trace metals are below 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 Jones County Sanitary Landfill during the second semi-annual monitoring event in 2024 are summarized below. Historical VOC detections are summarized in Attachment C.

Organic compounds detected during the second semi-annual monitoring event in 2024

Well	VOC Detected	Result, µg/L	Reporting Limit, µg/L	Verified/ Awaiting Verification	Groundwater Standard, µg/L
MW-15	1,4-Dichlorobenzene	1.6	1	Verified	75[a]
	Benzene	2.8	1	Verified	5[a]
	Chlorobenzene	4.7	1	Verified	100[a]
	Chloroethane	4.2	1	Verified	2,800[b]

a - USEPA MCL
b – Iowa Statewide Standard

The verified VOC detections were evaluated against the GWPS using confidence limits (Attachment D). The calculated 95% LCLs of the verified VOCs are below GWPS.

CONCLUSIONS

This report summarizes the statistical analyses used to evaluate the ground water data obtained during the second semi-annual monitoring event in 2024 at Jones County Sanitary Landfill. The ground water data obtained during the second semi-annual monitoring event in 2024 was compared to background using prediction limits (interwell). For the most current data, there are verified site prediction limit exceedances detected for arsenic, barium, cobalt, and nickel at MW-15.

The VOCs were compared to MCLs or PQLs, in lieu of statistical comparisons to historical concentrations. There are verified detections of 1,4-dichlorobenzene, benzene, chlorobenzene, and chloroethane at MW-15.

Attachment A

Summary of the Data obtained during the Second Semi-Annual Monitoring Event in 2024

Table 1

Analytical Data Summary for 10/8/2024

Constituents	Units	MW-11	MW-12	MW-15	MW-16	MW-20	MW-22	MW-6
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<5	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	<1.0
2-butanone (mek)	ug/L	<10	<10	<10	<10	<10	<10	<10
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5
Alkalinity, as caco3	mg/L			394				
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	<4	<4	209	<4	<4	<4	<4
Barium, total	ug/L	249.0	253.0	1200.0	82.7	120.0	161.0	519.0
Benzene	ug/L	<1.0	<1.0	2.8	<1.0	<1.0	<1.0	<1.0
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4
Bis(2-ethylhexyl) phthalate	ug/L							<13
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1.0	<1.0	4.7	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	<1.0	<1.0	4.2	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<.4	<.4	15.5	.6	<.4	.5	2.2
Copper, total	ug/L	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1
Ethane	ug/L			<5				
Ethene	ug/L			<5				
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4
Methane	ug/L			3150				
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	<4.0	<4.0	85.1	6.7	<4.0	<4.0	12.9
pH	pH			6.8				
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<2	<2	<2	<2	<2	<2	<2
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	<20.0	<20.0	<20.0	25.6	<20.0	<20.0	<20.0

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

Attachment B

Summary Tables and Graphs for the Interwell Comparisons

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, total	ug/L	MW-12	04/20/2015	ND	2.0000		
Antimony, total	ug/L	MW-12	07/09/2015	ND	2.0000		
Antimony, total	ug/L	MW-12	10/05/2015	ND	2.0000		
Antimony, total	ug/L	MW-12	04/05/2016	ND	2.0000		
Antimony, total	ug/L	MW-12	10/05/2016	ND	2.0000		
Antimony, total	ug/L	MW-12	04/04/2017	ND	2.0000		
Antimony, total	ug/L	MW-12	10/03/2017	ND	2.0000		
Antimony, total	ug/L	MW-12	04/10/2018	ND	2.0000		
Antimony, total	ug/L	MW-12	10/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-12	04/16/2019		3.5000		
Antimony, total	ug/L	MW-12	09/30/2019	ND	2.0000		
Antimony, total	ug/L	MW-12	04/07/2020	ND	2.0000		
Antimony, total	ug/L	MW-12	10/07/2020	ND	2.0000		
Antimony, total	ug/L	MW-12	04/22/2021	ND	2.0000		
Antimony, total	ug/L	MW-12	10/05/2021	ND	2.0000		
Antimony, total	ug/L	MW-12	04/04/2022	ND	2.0000		
Antimony, total	ug/L	MW-12	10/05/2022	ND	2.0000		
Antimony, total	ug/L	MW-12	04/14/2023	ND	2.0000		
Antimony, total	ug/L	MW-12	10/18/2023	ND	2.0000		
Antimony, total	ug/L	MW-12	04/08/2024	ND	2.0000		
Antimony, total	ug/L	MW-12	10/08/2024	ND	2.0000		
Arsenic, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Arsenic, total	ug/L	MW-12	07/09/2015	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/10/2018	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/12/2018	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Arsenic, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/07/2020	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/04/2022	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/05/2022	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Arsenic, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Arsenic, total	ug/L	MW-12	10/08/2024	ND	4.0000		
Barium, total	ug/L	MW-12	04/20/2015		264.0000		
Barium, total	ug/L	MW-12	07/09/2015		269.0000		
Barium, total	ug/L	MW-12	10/05/2015		293.0000		
Barium, total	ug/L	MW-12	04/05/2016		306.0000		
Barium, total	ug/L	MW-12	10/05/2016		274.0000		
Barium, total	ug/L	MW-12	04/04/2017		279.0000		
Barium, total	ug/L	MW-12	10/03/2017		268.0000		
Barium, total	ug/L	MW-12	04/10/2018		273.0000		
Barium, total	ug/L	MW-12	10/12/2018		243.0000		
Barium, total	ug/L	MW-12	04/16/2019		261.0000		
Barium, total	ug/L	MW-12	09/30/2019		253.0000		
Barium, total	ug/L	MW-12	04/07/2020		276.0000		
Barium, total	ug/L	MW-12	10/07/2020		256.0000		
Barium, total	ug/L	MW-12	04/22/2021		252.0000		
Barium, total	ug/L	MW-12	10/05/2021		216.0000		
Barium, total	ug/L	MW-12	04/04/2022		254.0000		
Barium, total	ug/L	MW-12	10/05/2022		219.0000		
Barium, total	ug/L	MW-12	04/14/2023		232.0000		
Barium, total	ug/L	MW-12	10/18/2023		255.0000		
Barium, total	ug/L	MW-12	04/08/2024		247.0000		
Barium, total	ug/L	MW-12	10/08/2024		253.0000		
Beryllium, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Beryllium, total	ug/L	MW-12	07/09/2015	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/10/2018	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Beryllium, total	ug/L	MW-12	09/30/2019	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	04/07/2020	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/04/2022	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/05/2022	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Beryllium, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Beryllium, total	ug/L	MW-12	10/08/2024	ND	4.0000		
Cadmium, total	ug/L	MW-12	04/20/2015	ND	0.8000		
Cadmium, total	ug/L	MW-12	07/09/2015	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/05/2015	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/05/2016	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/05/2016	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/04/2017	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/03/2017	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/10/2018	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/16/2019	ND	0.8000		
Cadmium, total	ug/L	MW-12	09/30/2019	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/07/2020	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/07/2020	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/22/2021	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/05/2021	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/04/2022	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/05/2022	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/14/2023	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/18/2023	ND	0.8000		
Cadmium, total	ug/L	MW-12	04/08/2024	ND	0.8000		
Cadmium, total	ug/L	MW-12	10/08/2024	ND	0.8000		
Chromium, total	ug/L	MW-12	04/20/2015	ND	8.0000		
Chromium, total	ug/L	MW-12	07/09/2015	ND	8.0000		
Chromium, total	ug/L	MW-12	10/05/2015	ND	8.0000		
Chromium, total	ug/L	MW-12	04/05/2016	ND	8.0000		
Chromium, total	ug/L	MW-12	10/05/2016	ND	8.0000		
Chromium, total	ug/L	MW-12	04/04/2017	ND	8.0000		
Chromium, total	ug/L	MW-12	10/03/2017	ND	8.0000		
Chromium, total	ug/L	MW-12	04/10/2018	ND	8.0000		
Chromium, total	ug/L	MW-12	10/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-12	04/16/2019	ND	8.0000		
Chromium, total	ug/L	MW-12	09/30/2019	ND	8.0000		
Chromium, total	ug/L	MW-12	04/07/2020	ND	8.0000		
Chromium, total	ug/L	MW-12	10/07/2020	ND	8.0000		
Chromium, total	ug/L	MW-12	04/22/2021	ND	8.0000		
Chromium, total	ug/L	MW-12	10/05/2021	ND	8.0000		
Chromium, total	ug/L	MW-12	04/04/2022	ND	8.0000		
Chromium, total	ug/L	MW-12	10/05/2022	ND	8.0000		
Chromium, total	ug/L	MW-12	04/14/2023	ND	8.0000		
Chromium, total	ug/L	MW-12	10/18/2023	ND	8.0000		
Chromium, total	ug/L	MW-12	04/08/2024	ND	8.0000		
Chromium, total	ug/L	MW-12	10/08/2024	ND	8.0000		
Cobalt, total	ug/L	MW-12	04/20/2015	ND	0.8000		
Cobalt, total	ug/L	MW-12	07/09/2015	ND	0.8000		
Cobalt, total	ug/L	MW-12	10/05/2015	ND	0.8000		
Cobalt, total	ug/L	MW-12	04/05/2016	ND	0.8000		
Cobalt, total	ug/L	MW-12	10/05/2016	ND	0.8000		
Cobalt, total	ug/L	MW-12	04/04/2017	ND	0.8000		
Cobalt, total	ug/L	MW-12	10/03/2017	ND	0.8000		
Cobalt, total	ug/L	MW-12	04/10/2018	ND	0.8000		
Cobalt, total	ug/L	MW-12	10/12/2018	ND	0.8000		
Cobalt, total	ug/L	MW-12	04/16/2019	ND	0.8000		
Cobalt, total	ug/L	MW-12	09/30/2019	ND	0.8000		
Cobalt, total	ug/L	MW-12	04/07/2020	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	10/07/2020	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	04/22/2021	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	10/05/2021	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	04/04/2022	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	10/05/2022		2.6000		
Cobalt, total	ug/L	MW-12	04/14/2023	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	10/18/2023	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	04/08/2024	ND	0.4000	0.8000	***
Cobalt, total	ug/L	MW-12	10/08/2024	ND	0.4000	0.8000	***
Copper, total	ug/L	MW-12	04/20/2015	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-12	07/09/2015	ND	4.0000		
Copper, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Copper, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Copper, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Copper, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Copper, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Copper, total	ug/L	MW-12	04/10/2018	ND	4.0000		
Copper, total	ug/L	MW-12	10/12/2018	ND	4.0000		
Copper, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Copper, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Copper, total	ug/L	MW-12	04/07/2020	ND	4.0000		
Copper, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Copper, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Copper, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Copper, total	ug/L	MW-12	04/04/2022	ND	4.0000		
Copper, total	ug/L	MW-12	10/05/2022	ND	4.0000		
Copper, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Copper, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Copper, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Copper, total	ug/L	MW-12	10/08/2024	ND	4.0000		
Lead, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Lead, total	ug/L	MW-12	07/09/2015	ND	4.0000		
Lead, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Lead, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Lead, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Lead, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Lead, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Lead, total	ug/L	MW-12	04/10/2018	ND	4.0000		
Lead, total	ug/L	MW-12	10/12/2018	ND	4.0000		
Lead, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Lead, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Lead, total	ug/L	MW-12	04/07/2020	ND	4.0000		
Lead, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Lead, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Lead, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Lead, total	ug/L	MW-12	04/04/2022	ND	4.0000		
Lead, total	ug/L	MW-12	10/05/2022	ND	4.0000		
Lead, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Lead, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Lead, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Lead, total	ug/L	MW-12	10/08/2024	ND	4.0000		
Nickel, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Nickel, total	ug/L	MW-12	07/09/2015	ND	4.0000		
Nickel, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Nickel, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Nickel, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Nickel, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Nickel, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Nickel, total	ug/L	MW-12	04/10/2018		13.4000		
Nickel, total	ug/L	MW-12	10/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Nickel, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Nickel, total	ug/L	MW-12	04/07/2020	ND	4.0000		
Nickel, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Nickel, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Nickel, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Nickel, total	ug/L	MW-12	04/04/2022		10.4000		
Nickel, total	ug/L	MW-12	10/05/2022		6.2000		
Nickel, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Nickel, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Nickel, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Nickel, total	ug/L	MW-12	10/08/2024	ND	4.0000		
Selenium, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Selenium, total	ug/L	MW-12	07/09/2015	ND	4.0000		
Selenium, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Selenium, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Selenium, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Selenium, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Selenium, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Selenium, total	ug/L	MW-12	04/10/2018	ND	4.0000		
Selenium, total	ug/L	MW-12	10/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Selenium, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Selenium, total	ug/L	MW-12	04/07/2020	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	
Selenium, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Selenium, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Selenium, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Selenium, total	ug/L	MW-12	04/04/2022	ND	4.0000		
Selenium, total	ug/L	MW-12	10/05/2022	ND	4.0000		
Selenium, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Selenium, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Selenium, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Selenium, total	ug/L	MW-12	10/08/2024	ND	4.0000		
Silver, total	ug/L	MW-12	04/20/2015	ND	4.0000		
Silver, total	ug/L	MW-12	07/09/2015	ND	4.0000		
Silver, total	ug/L	MW-12	10/05/2015	ND	4.0000		
Silver, total	ug/L	MW-12	04/05/2016	ND	4.0000		
Silver, total	ug/L	MW-12	10/05/2016	ND	4.0000		
Silver, total	ug/L	MW-12	04/04/2017	ND	4.0000		
Silver, total	ug/L	MW-12	10/03/2017	ND	4.0000		
Silver, total	ug/L	MW-12	04/10/2018	ND	4.0000		
Silver, total	ug/L	MW-12	10/12/2018	ND	8.0000	4.0000	**
Silver, total	ug/L	MW-12	04/16/2019	ND	4.0000		
Silver, total	ug/L	MW-12	09/30/2019	ND	4.0000		
Silver, total	ug/L	MW-12	04/07/2020	ND	4.0000		
Silver, total	ug/L	MW-12	10/07/2020	ND	4.0000		
Silver, total	ug/L	MW-12	04/22/2021	ND	4.0000		
Silver, total	ug/L	MW-12	10/05/2021	ND	4.0000		
Silver, total	ug/L	MW-12	04/04/2022	ND	4.0000		
Silver, total	ug/L	MW-12	10/05/2022	ND	4.0000		
Silver, total	ug/L	MW-12	04/14/2023	ND	4.0000		
Silver, total	ug/L	MW-12	10/18/2023	ND	4.0000		
Silver, total	ug/L	MW-12	04/08/2024	ND	4.0000		
Silver, total	ug/L	MW-12	10/08/2024	ND	4.0000		
Thallium, total	ug/L	MW-12	04/20/2015	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	07/09/2015	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/05/2015	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/05/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/05/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/04/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/03/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/10/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	10/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-12	04/16/2019	ND	2.0000		
Thallium, total	ug/L	MW-12	09/30/2019	ND	2.0000		
Thallium, total	ug/L	MW-12	04/07/2020	ND	2.0000		
Thallium, total	ug/L	MW-12	10/07/2020	ND	2.0000		
Thallium, total	ug/L	MW-12	04/22/2021	ND	2.0000		
Thallium, total	ug/L	MW-12	10/05/2021	ND	2.0000		
Thallium, total	ug/L	MW-12	04/04/2022	ND	2.0000		
Thallium, total	ug/L	MW-12	10/05/2022	ND	2.0000		
Thallium, total	ug/L	MW-12	04/14/2023	ND	2.0000		
Thallium, total	ug/L	MW-12	10/18/2023	ND	2.0000		
Thallium, total	ug/L	MW-12	04/08/2024	ND	2.0000		
Thallium, total	ug/L	MW-12	10/08/2024	ND	2.0000		
Vanadium, total	ug/L	MW-12	04/20/2015	ND	20.0000		
Vanadium, total	ug/L	MW-12	07/09/2015	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/05/2015	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/05/2016	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/05/2016	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/04/2017	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/03/2017	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/10/2018	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/16/2019	ND	20.0000		
Vanadium, total	ug/L	MW-12	09/30/2019	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/07/2020	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/07/2020	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/22/2021	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/05/2021	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/04/2022	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/05/2022	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/14/2023	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/18/2023	ND	20.0000		
Vanadium, total	ug/L	MW-12	04/08/2024	ND	20.0000		
Vanadium, total	ug/L	MW-12	10/08/2024	ND	20.0000		
Zinc, total	ug/L	MW-12	04/20/2015	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	07/09/2015		18.1000		

* - 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 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Zinc, total	ug/L	MW-12	10/05/2015		10.1000		
Zinc, total	ug/L	MW-12	04/05/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	10/05/2016	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	04/04/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	10/03/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	04/10/2018		27.2000		
Zinc, total	ug/L	MW-12	10/12/2018	ND	20.0000		
Zinc, total	ug/L	MW-12	04/16/2019	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-12	09/30/2019		10.9000		
Zinc, total	ug/L	MW-12	04/07/2020	ND	20.0000		
Zinc, total	ug/L	MW-12	10/07/2020	ND	20.0000		
Zinc, total	ug/L	MW-12	04/22/2021	ND	20.0000		
Zinc, total	ug/L	MW-12	10/05/2021	ND	20.0000		
Zinc, total	ug/L	MW-12	04/04/2022		24.2000		
Zinc, total	ug/L	MW-12	10/05/2022	ND	20.0000		
Zinc, total	ug/L	MW-12	04/14/2023	ND	20.0000		
Zinc, total	ug/L	MW-12	10/18/2023		21.8000		
Zinc, total	ug/L	MW-12	04/08/2024	ND	20.0000		
Zinc, total	ug/L	MW-12	10/08/2024	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 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, total	ug/L	MW-11	10/08/2024	ND	2.0000		3.5000
Arsenic, total	ug/L	MW-11	10/08/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-11	10/08/2024		249.0000		315.3650
Beryllium, total	ug/L	MW-11	10/08/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-11	10/08/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-11	10/08/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-11	10/08/2024	ND	0.4000		2.6000
Copper, total	ug/L	MW-11	10/08/2024	ND	4.0000		4.0000
Lead, total	ug/L	MW-11	10/08/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-11	10/08/2024	ND	4.0000		13.4000
Selenium, total	ug/L	MW-11	10/08/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-11	10/08/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-11	10/08/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-11	10/08/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-11	10/08/2024	ND	20.0000		27.2000
Antimony, total	ug/L	MW-15	10/08/2024	ND	2.0000		3.5000
Arsenic, total	ug/L	MW-15	10/08/2024		209.0000	***	4.0000
Barium, total	ug/L	MW-15	10/08/2024		1200.0000	***	315.3650
Beryllium, total	ug/L	MW-15	10/08/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-15	10/08/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-15	10/08/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-15	10/08/2024		15.5000	***	2.6000
Copper, total	ug/L	MW-15	10/08/2024	ND	4.0000		4.0000
Lead, total	ug/L	MW-15	10/08/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-15	10/08/2024		85.1000	***	13.4000
Selenium, total	ug/L	MW-15	10/08/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-15	10/08/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-15	10/08/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-15	10/08/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-15	10/08/2024	ND	20.0000		27.2000
Antimony, total	ug/L	MW-16	10/08/2024	ND	2.0000		3.5000
Arsenic, total	ug/L	MW-16	10/08/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-16	10/08/2024		82.7000		315.3650
Beryllium, total	ug/L	MW-16	10/08/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-16	10/08/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-16	10/08/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-16	10/08/2024		0.6000		2.6000
Copper, total	ug/L	MW-16	10/08/2024	ND	4.0000		4.0000
Lead, total	ug/L	MW-16	10/08/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-16	10/08/2024		6.7000		13.4000
Selenium, total	ug/L	MW-16	10/08/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-16	10/08/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-16	10/08/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-16	10/08/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-16	10/08/2024		25.6000		27.2000
Antimony, total	ug/L	MW-20	10/08/2024	ND	2.0000		3.5000
Arsenic, total	ug/L	MW-20	10/08/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-20	10/08/2024		120.0000		315.3650
Beryllium, total	ug/L	MW-20	10/08/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-20	10/08/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-20	10/08/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-20	10/08/2024	ND	0.4000		2.6000
Copper, total	ug/L	MW-20	10/08/2024	ND	4.0000		4.0000
Lead, total	ug/L	MW-20	10/08/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-20	10/08/2024	ND	4.0000		13.4000
Selenium, total	ug/L	MW-20	10/08/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-20	10/08/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-20	10/08/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-20	10/08/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-20	10/08/2024	ND	20.0000		27.2000
Antimony, total	ug/L	MW-22	10/08/2024	ND	2.0000		3.5000
Arsenic, total	ug/L	MW-22	10/08/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-22	10/08/2024		161.0000		315.3650
Beryllium, total	ug/L	MW-22	10/08/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-22	10/08/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-22	10/08/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-22	10/08/2024		0.5000		2.6000
Copper, total	ug/L	MW-22	10/08/2024	ND	4.0000		4.0000
Lead, total	ug/L	MW-22	10/08/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-22	10/08/2024	ND	4.0000		13.4000
Selenium, total	ug/L	MW-22	10/08/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-22	10/08/2024	ND	4.0000		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-22	10/08/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-22	10/08/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-22	10/08/2024	ND	20.0000		27.2000
Antimony, total	ug/L	MW-6	10/08/2024	ND	2.0000		3.5000
Arsenic, total	ug/L	MW-6	10/08/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-6	10/08/2024		519.0000	*	315.3650
Beryllium, total	ug/L	MW-6	10/08/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-6	10/08/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-6	10/08/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-6	10/08/2024		2.2000		2.6000
Copper, total	ug/L	MW-6	10/08/2024	ND	4.0000		4.0000
Lead, total	ug/L	MW-6	10/08/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-6	10/08/2024		12.9000		13.4000
Selenium, total	ug/L	MW-6	10/08/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-6	10/08/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-6	10/08/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-6	10/08/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-6	10/08/2024	ND	20.0000		27.2000

* - 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	1	21	0.048	0	148	0.000
Arsenic, total	0	21	0.000	46	173	0.266
Barium, total	21	21	1.000	190	190	1.000
Beryllium, total	0	21	0.000	0	148	0.000
Cadmium, total	0	21	0.000	23	178	0.129
Chromium, total	0	21	0.000	22	169	0.130
Cobalt, total	1	21	0.048	86	206	0.417
Copper, total	0	21	0.000	63	188	0.335
Lead, total	0	21	0.000	35	179	0.196
Nickel, total	3	21	0.143	108	189	0.571
Selenium, total	0	21	0.000	14	168	0.083
Silver, total	0	21	0.000	0	148	0.000
Thallium, total	0	21	0.000	0	148	0.000
Vanadium, total	0	21	0.000	23	177	0.130
Zinc, total	6	21	0.286	83	191	0.435

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	1	21	0.048									nonpar
Arsenic, total	0	21	0.000									nonpar
Barium, total	21	21	1.000	0.643	0.242					2.326	normal	normal
Beryllium, total	0	21	0.000									nonpar
Cadmium, total	0	21	0.000									nonpar
Chromium, total	0	21	0.000									nonpar
Cobalt, total	1	21	0.048									nonpar
Copper, total	0	21	0.000									nonpar
Lead, total	0	21	0.000									nonpar
Nickel, total	3	21	0.143	0.903	0.321					2.326	normal	nonpar
Selenium, total	0	21	0.000									nonpar
Silver, total	0	21	0.000									nonpar
Thallium, total	0	21	0.000									nonpar
Vanadium, total	0	21	0.000									nonpar
Zinc, total	6	21	0.286	0.057	0.645					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	1	21					3.5000	nonpar		0.98
Arsenic, total	ug/L	0	21					4.0000	nonpar	***	0.98
Barium, total	ug/L	21	21	259.1905	21.7178	0.0100	2.5866	315.3650	normal		
Beryllium, total	ug/L	0	21					4.0000	nonpar	***	0.98
Cadmium, total	ug/L	0	21					0.8000	nonpar	***	0.98
Chromium, total	ug/L	0	21					8.0000	nonpar	***	0.98
Cobalt, total	ug/L	1	21					2.6000	nonpar		0.98
Copper, total	ug/L	0	21					4.0000	nonpar	***	0.98
Lead, total	ug/L	0	21					4.0000	nonpar	***	0.98
Nickel, total	ug/L	3	21					13.4000	nonpar		0.98
Selenium, total	ug/L	0	21					4.0000	nonpar	***	0.98
Silver, total	ug/L	0	21					4.0000	nonpar	***	0.98
Thallium, total	ug/L	0	21					2.0000	nonpar	***	0.98
Vanadium, total	ug/L	0	21					20.0000	nonpar	***	0.98
Zinc, total	ug/L	6	21					27.2000	nonpar		0.98

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

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
Arsenic, total	ug/L	MW-15	03/06/2009		87.6000	*	4.0000
Arsenic, total	ug/L	MW-15	06/16/2009	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-15	07/13/2009		151.0000	*	4.0000
Arsenic, total	ug/L	MW-15	08/31/2009		54.6000	*	4.0000
Arsenic, total	ug/L	MW-15	10/20/2009		184.0000	*	4.0000
Arsenic, total	ug/L	MW-15	03/15/2010		78.4000	*	4.0000
Arsenic, total	ug/L	MW-15	06/10/2010		204.0000	*	4.0000
Arsenic, total	ug/L	MW-15	09/14/2010		209.0000	*	4.0000
Arsenic, total	ug/L	MW-15	03/11/2011		87.3000	*	4.0000
Arsenic, total	ug/L	MW-15	09/07/2011		267.0000	*	4.0000
Arsenic, total	ug/L	MW-15	03/14/2012		117.0000	*	4.0000
Arsenic, total	ug/L	MW-15	09/01/2012		282.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/01/2013		43.3000	*	4.0000
Arsenic, total	ug/L	MW-15	09/09/2013		187.0000	*	4.0000
Arsenic, total	ug/L	MW-15	03/30/2014		99.5000	*	4.0000
Arsenic, total	ug/L	MW-15	09/19/2014		21.9000	*	4.0000
Arsenic, total	ug/L	MW-15	04/20/2015		178.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/05/2015		208.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/05/2016		183.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/05/2016		153.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/04/2017		177.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/03/2017		233.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/10/2018		142.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/12/2018		128.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/16/2019		125.0000	*	4.0000
Arsenic, total	ug/L	MW-15	09/30/2019		212.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/07/2020		149.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/07/2020		168.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/22/2021		177.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/05/2021		200.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/04/2022		143.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/05/2022		250.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/14/2023		168.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/18/2023		166.0000	*	4.0000
Arsenic, total	ug/L	MW-15	04/08/2024		151.0000	*	4.0000
Arsenic, total	ug/L	MW-15	10/08/2024		209.0000	*	4.0000
Barium, total	ug/L	MW-15	03/06/2009		1390.0000	*	315.3650
Barium, total	ug/L	MW-15	06/16/2009		97.7000		315.3650
Barium, total	ug/L	MW-15	07/13/2009		1260.0000	*	315.3650
Barium, total	ug/L	MW-15	08/31/2009		1060.0000	*	315.3650
Barium, total	ug/L	MW-15	10/20/2009		1440.0000	*	315.3650
Barium, total	ug/L	MW-15	03/15/2010		752.0000	*	315.3650
Barium, total	ug/L	MW-15	06/10/2010		1880.0000	*	315.3650
Barium, total	ug/L	MW-15	09/14/2010		3550.0000	*	315.3650
Barium, total	ug/L	MW-15	03/11/2011		1010.0000	*	315.3650
Barium, total	ug/L	MW-15	09/07/2011		2300.0000	*	315.3650
Barium, total	ug/L	MW-15	03/14/2012		869.0000	*	315.3650
Barium, total	ug/L	MW-15	09/01/2012		2010.0000	*	315.3650
Barium, total	ug/L	MW-15	04/01/2013		596.0000	*	315.3650
Barium, total	ug/L	MW-15	09/09/2013		988.0000	*	315.3650
Barium, total	ug/L	MW-15	03/30/2014		1120.0000	*	315.3650
Barium, total	ug/L	MW-15	09/19/2014		694.0000	*	315.3650
Barium, total	ug/L	MW-15	04/20/2015		1160.0000	*	315.3650
Barium, total	ug/L	MW-15	10/05/2015		1030.0000	*	315.3650
Barium, total	ug/L	MW-15	04/05/2016		1080.0000	*	315.3650
Barium, total	ug/L	MW-15	10/05/2016		1160.0000	*	315.3650
Barium, total	ug/L	MW-15	04/04/2017		1130.0000	*	315.3650
Barium, total	ug/L	MW-15	10/03/2017		1160.0000	*	315.3650
Barium, total	ug/L	MW-15	04/10/2018		598.0000	*	315.3650
Barium, total	ug/L	MW-15	10/12/2018		1050.0000	*	315.3650
Barium, total	ug/L	MW-15	04/16/2019		1390.0000	*	315.3650
Barium, total	ug/L	MW-15	09/30/2019		1170.0000	*	315.3650
Barium, total	ug/L	MW-15	04/07/2020		1300.0000	*	315.3650
Barium, total	ug/L	MW-15	10/07/2020		881.0000	*	315.3650
Barium, total	ug/L	MW-15	04/22/2021		868.0000	*	315.3650
Barium, total	ug/L	MW-15	10/05/2021		1180.0000	*	315.3650
Barium, total	ug/L	MW-15	04/04/2022		1000.0000	*	315.3650
Barium, total	ug/L	MW-15	10/05/2022		1170.0000	*	315.3650
Barium, total	ug/L	MW-15	04/14/2023		783.0000	*	315.3650
Barium, total	ug/L	MW-15	10/18/2023		1350.0000	*	315.3650
Barium, total	ug/L	MW-15	04/08/2024		800.0000	*	315.3650

* - 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-15	10/08/2024		1200.0000	*	315.3650
Cobalt, total	ug/L	MW-15	04/06/2006		27.0000	*	2.6000
Cobalt, total	ug/L	MW-15	09/07/2006		23.0000	*	2.6000
Cobalt, total	ug/L	MW-15	03/14/2007		23.0000	*	2.6000
Cobalt, total	ug/L	MW-15	09/19/2007		22.0000	*	2.6000
Cobalt, total	ug/L	MW-15	03/25/2008		21.0000	*	2.6000
Cobalt, total	ug/L	MW-15	09/05/2008		24.0000	*	2.6000
Cobalt, total	ug/L	MW-15	03/06/2009		24.7000	*	2.6000
Cobalt, total	ug/L	MW-15	06/16/2009	ND	4.0000		2.6000
Cobalt, total	ug/L	MW-15	07/13/2009		54.0000	*	2.6000
Cobalt, total	ug/L	MW-15	08/31/2009		23.6000	*	2.6000
Cobalt, total	ug/L	MW-15	10/20/2009		23.9000	*	2.6000
Cobalt, total	ug/L	MW-15	03/15/2010		23.0000	*	2.6000
Cobalt, total	ug/L	MW-15	06/10/2010		78.4000	*	2.6000
Cobalt, total	ug/L	MW-15	09/14/2010		145.3667	*	2.6000
Cobalt, total	ug/L	MW-15	03/11/2011		22.2333	*	2.6000
Cobalt, total	ug/L	MW-15	09/07/2011		65.1000	*	2.6000
Cobalt, total	ug/L	MW-15	03/14/2012		21.2000	*	2.6000
Cobalt, total	ug/L	MW-15	09/01/2012		43.8000	*	2.6000
Cobalt, total	ug/L	MW-15	04/01/2013		14.9000	*	2.6000
Cobalt, total	ug/L	MW-15	09/09/2013		22.5000	*	2.6000
Cobalt, total	ug/L	MW-15	03/30/2014		30.0000	*	2.6000
Cobalt, total	ug/L	MW-15	09/19/2014		19.4000	*	2.6000
Cobalt, total	ug/L	MW-15	04/20/2015		22.3000	*	2.6000
Cobalt, total	ug/L	MW-15	10/05/2015		24.3000	*	2.6000
Cobalt, total	ug/L	MW-15	04/05/2016		21.3000	*	2.6000
Cobalt, total	ug/L	MW-15	10/05/2016		20.1000	*	2.6000
Cobalt, total	ug/L	MW-15	04/04/2017		19.8000	*	2.6000
Cobalt, total	ug/L	MW-15	10/03/2017		22.5000	*	2.6000
Cobalt, total	ug/L	MW-15	04/10/2018		12.3000	*	2.6000
Cobalt, total	ug/L	MW-15	10/12/2018		22.0000	*	2.6000
Cobalt, total	ug/L	MW-15	04/16/2019		23.7000	*	2.6000
Cobalt, total	ug/L	MW-15	09/30/2019		24.2000	*	2.6000
Cobalt, total	ug/L	MW-15	04/07/2020		19.6000	*	2.6000
Cobalt, total	ug/L	MW-15	10/07/2020		15.0000	*	2.6000
Cobalt, total	ug/L	MW-15	04/22/2021		15.1000	*	2.6000
Cobalt, total	ug/L	MW-15	10/05/2021		20.0000	*	2.6000
Cobalt, total	ug/L	MW-15	04/04/2022		18.4000	*	2.6000
Cobalt, total	ug/L	MW-15	10/05/2022		21.2000	*	2.6000
Cobalt, total	ug/L	MW-15	04/14/2023		13.1000	*	2.6000
Cobalt, total	ug/L	MW-15	10/18/2023		15.9000	*	2.6000
Cobalt, total	ug/L	MW-15	04/08/2024		14.1000	*	2.6000
Cobalt, total	ug/L	MW-15	10/08/2024		15.5000	*	2.6000
Nickel, total	ug/L	MW-15	03/06/2009		88.9000	*	13.4000
Nickel, total	ug/L	MW-15	06/16/2009		9.7000		13.4000
Nickel, total	ug/L	MW-15	07/13/2009		161.0000	*	13.4000
Nickel, total	ug/L	MW-15	08/31/2009		64.8000	*	13.4000
Nickel, total	ug/L	MW-15	10/20/2009		71.9000	*	13.4000
Nickel, total	ug/L	MW-15	03/15/2010		70.5000	*	13.4000
Nickel, total	ug/L	MW-15	06/10/2010		211.0000	*	13.4000
Nickel, total	ug/L	MW-15	09/14/2010		536.0000	*	13.4000
Nickel, total	ug/L	MW-15	03/11/2011		86.4000	*	13.4000
Nickel, total	ug/L	MW-15	09/07/2011		261.0000	*	13.4000
Nickel, total	ug/L	MW-15	03/14/2012		78.1000	*	13.4000
Nickel, total	ug/L	MW-15	09/01/2012		137.0000	*	13.4000
Nickel, total	ug/L	MW-15	04/01/2013		45.2000	*	13.4000
Nickel, total	ug/L	MW-15	09/09/2013		88.9000	*	13.4000
Nickel, total	ug/L	MW-15	03/30/2014		97.0000	*	13.4000
Nickel, total	ug/L	MW-15	09/19/2014		67.0000	*	13.4000
Nickel, total	ug/L	MW-15	04/20/2015		73.3000	*	13.4000
Nickel, total	ug/L	MW-15	10/05/2015		102.0000	*	13.4000
Nickel, total	ug/L	MW-15	04/05/2016		70.3000	*	13.4000
Nickel, total	ug/L	MW-15	10/05/2016		59.8000	*	13.4000
Nickel, total	ug/L	MW-15	04/04/2017		71.0000	*	13.4000
Nickel, total	ug/L	MW-15	10/03/2017		101.0000	*	13.4000
Nickel, total	ug/L	MW-15	04/10/2018		57.8000	*	13.4000
Nickel, total	ug/L	MW-15	10/12/2018		52.9000	*	13.4000
Nickel, total	ug/L	MW-15	04/16/2019		70.3000	*	13.4000
Nickel, total	ug/L	MW-15	09/30/2019		92.8000	*	13.4000
Nickel, total	ug/L	MW-15	04/07/2020		60.1000	*	13.4000
Nickel, total	ug/L	MW-15	10/07/2020		65.1000	*	13.4000

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

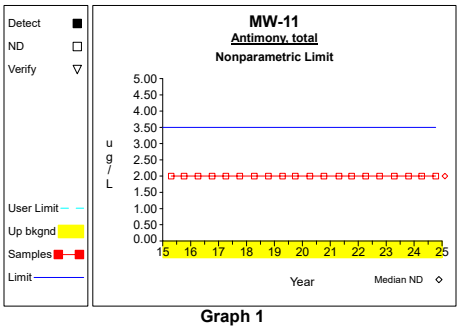
Table 8

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

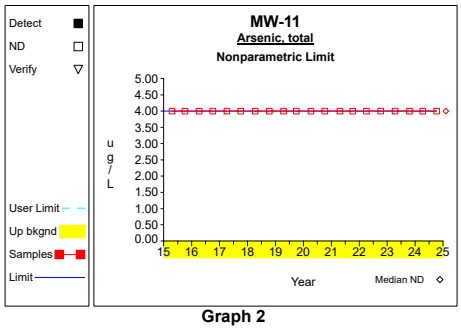
Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	MW-15	04/22/2021		61.8000	*	13.4000
Nickel, total	ug/L	MW-15	10/05/2021		86.1000	*	13.4000
Nickel, total	ug/L	MW-15	04/04/2022		63.4000	*	13.4000
Nickel, total	ug/L	MW-15	10/05/2022		93.6000	*	13.4000
Nickel, total	ug/L	MW-15	04/14/2023		67.5000	*	13.4000
Nickel, total	ug/L	MW-15	10/18/2023		72.1000	*	13.4000
Nickel, total	ug/L	MW-15	04/08/2024		58.3000	*	13.4000
Nickel, total	ug/L	MW-15	10/08/2024		85.1000	*	13.4000
Barium, total	ug/L	MW-6	03/06/2009		626.0000	*	315.3650
Barium, total	ug/L	MW-6	06/16/2009		625.0000	*	315.3650
Barium, total	ug/L	MW-6	07/13/2009		636.0000	*	315.3650
Barium, total	ug/L	MW-6	08/31/2009		505.0000	*	315.3650
Barium, total	ug/L	MW-6	10/20/2009		665.0000	*	315.3650
Barium, total	ug/L	MW-6	03/15/2010		329.0000	*	315.3650
Barium, total	ug/L	MW-6	06/10/2010		644.0000	*	315.3650
Barium, total	ug/L	MW-6	09/14/2010		616.0000	*	315.3650
Barium, total	ug/L	MW-6	03/11/2011		653.0000	*	315.3650
Barium, total	ug/L	MW-6	09/07/2011		606.5000	*	315.3650
Barium, total	ug/L	MW-6	03/14/2012		519.0000	*	315.3650
Barium, total	ug/L	MW-6	09/01/2012		497.0000	*	315.3650
Barium, total	ug/L	MW-6	04/01/2013		665.0000	*	315.3650
Barium, total	ug/L	MW-6	09/09/2013		606.0000	*	315.3650
Barium, total	ug/L	MW-6	03/30/2014		612.0000	*	315.3650
Barium, total	ug/L	MW-6	09/19/2014		591.0000	*	315.3650
Barium, total	ug/L	MW-6	04/20/2015		717.0000	*	315.3650
Barium, total	ug/L	MW-6	10/05/2015		479.0000	*	315.3650
Barium, total	ug/L	MW-6	04/05/2016		408.0000	*	315.3650
Barium, total	ug/L	MW-6	10/05/2016		231.0000		315.3650
Barium, total	ug/L	MW-6	04/04/2017		154.0000		315.3650
Barium, total	ug/L	MW-6	10/03/2017		573.0000	*	315.3650
Barium, total	ug/L	MW-6	01/03/2018		613.0000	*	315.3650
Barium, total	ug/L	MW-6	04/10/2018		435.0000	*	315.3650
Barium, total	ug/L	MW-6	10/12/2018		289.0000		315.3650
Barium, total	ug/L	MW-6	04/16/2019		274.0000		315.3650
Barium, total	ug/L	MW-6	09/30/2019		409.0000	*	315.3650
Barium, total	ug/L	MW-6	04/07/2020		209.0000		315.3650
Barium, total	ug/L	MW-6	10/07/2020		226.0000		315.3650
Barium, total	ug/L	MW-6	04/22/2021		180.0000		315.3650
Barium, total	ug/L	MW-6	10/05/2021		497.0000	*	315.3650
Barium, total	ug/L	MW-6	04/04/2022		521.0000	*	315.3650
Barium, total	ug/L	MW-6	10/05/2022		551.0000	*	315.3650
Barium, total	ug/L	MW-6	04/14/2023		133.0000		315.3650
Barium, total	ug/L	MW-6	10/18/2023		431.0000	*	315.3650
Barium, total	ug/L	MW-6	04/08/2024		171.0000		315.3650
Barium, total	ug/L	MW-6	10/08/2024		519.0000	*	315.3650

* - Significantly increased over background.
** - Detect at limit for 100% NDs in background (NPPL only).
*** - Manual exclusion.
ND = Not Detected, Result = detection limit.

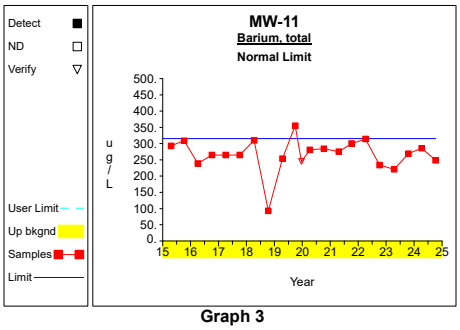
Up vs. Down Prediction Limits



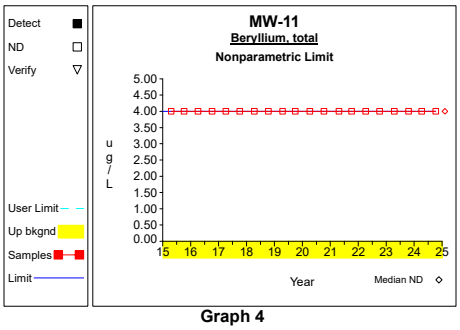
Graph 1



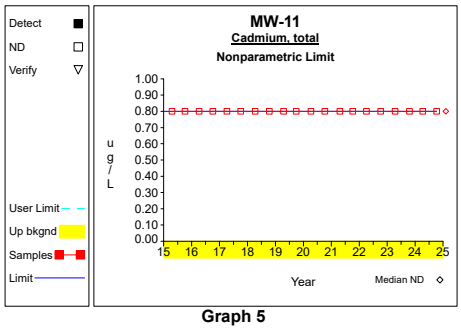
Graph 2



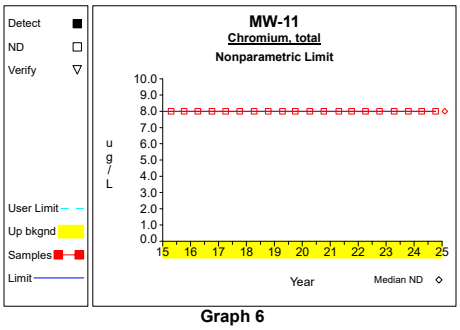
Graph 3



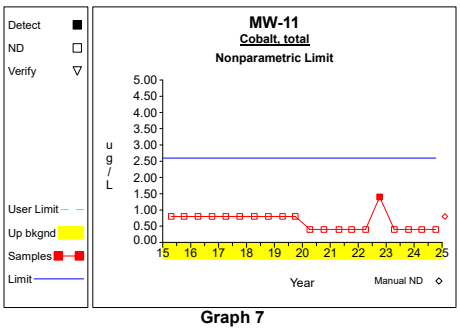
Graph 4



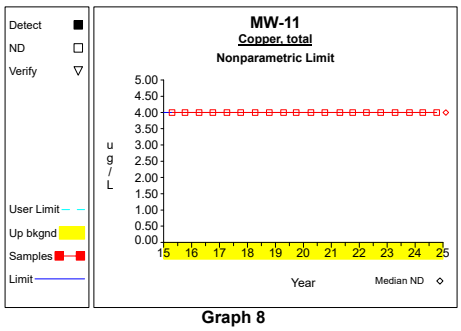
Graph 5



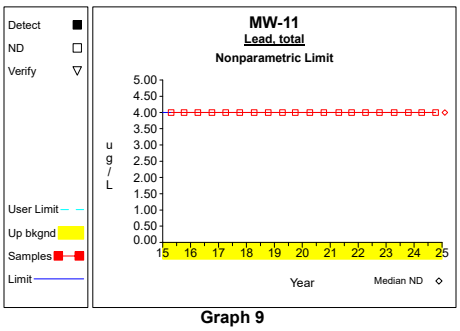
Graph 6



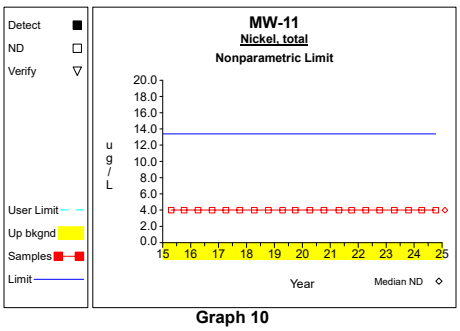
Graph 7



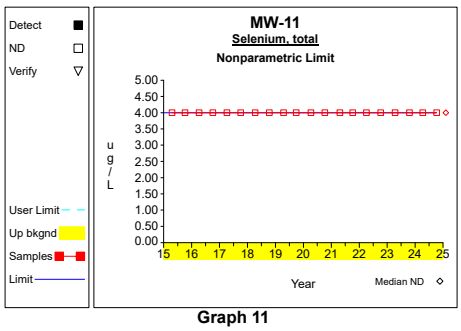
Graph 8



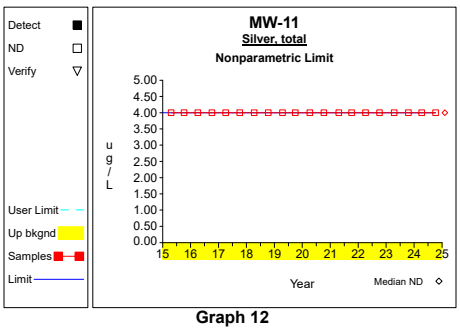
Graph 9



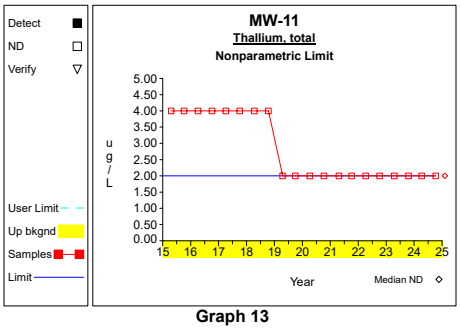
Graph 10



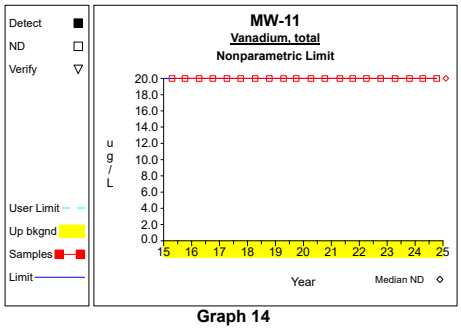
Graph 11



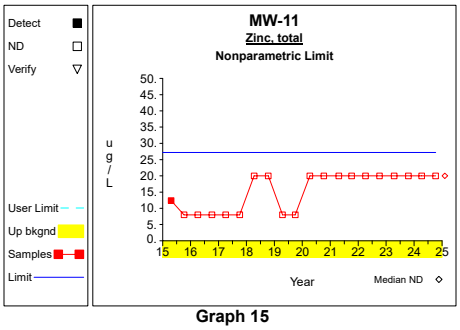
Graph 12



Graph 13



Graph 14



Graph 15

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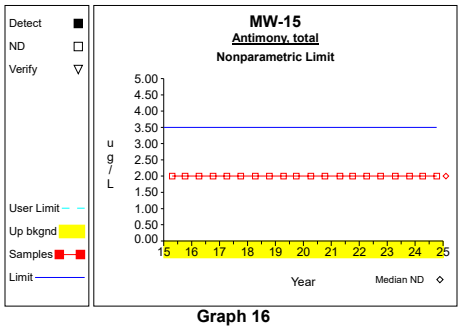
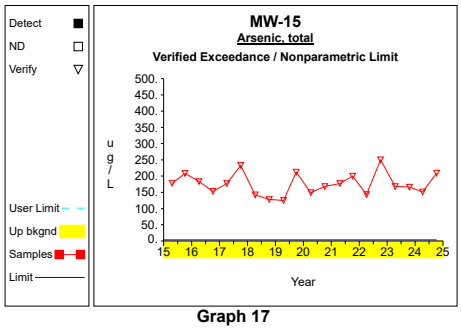
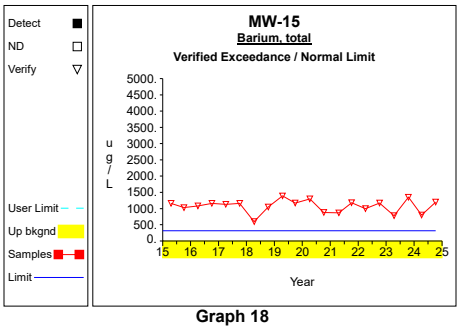
Up vs. Down Prediction Limits



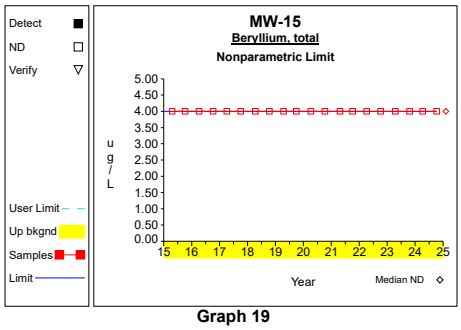
Graph 16



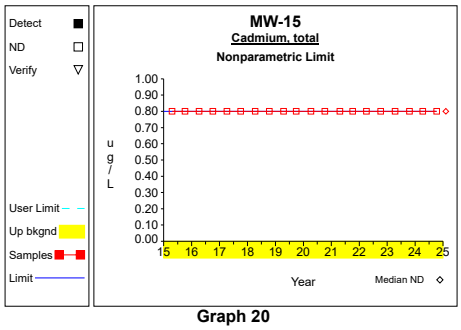
Graph 17



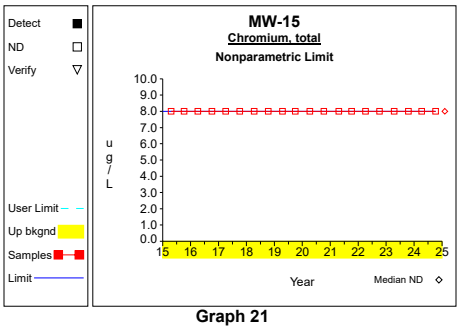
Graph 18



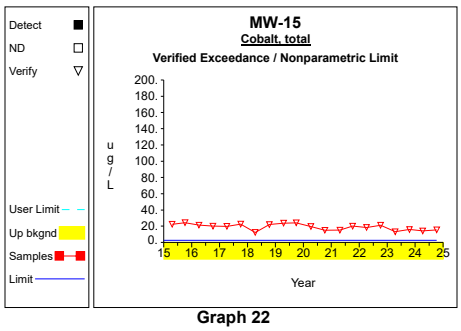
Graph 19



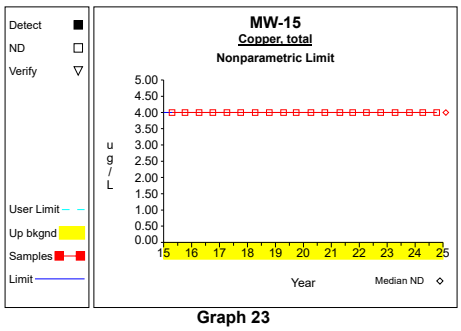
Graph 20



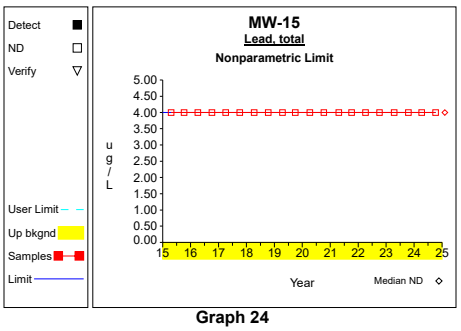
Graph 21



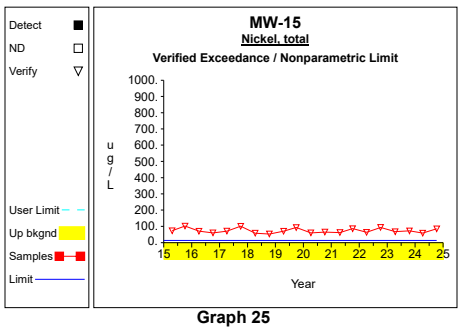
Graph 22



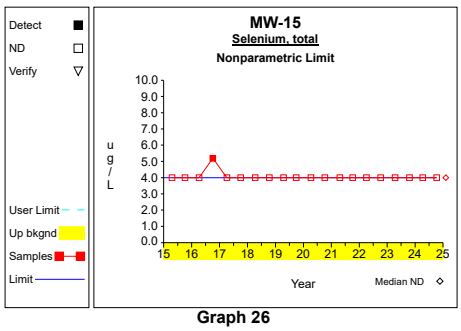
Graph 23



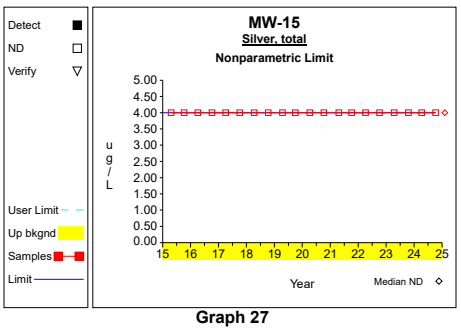
Graph 24



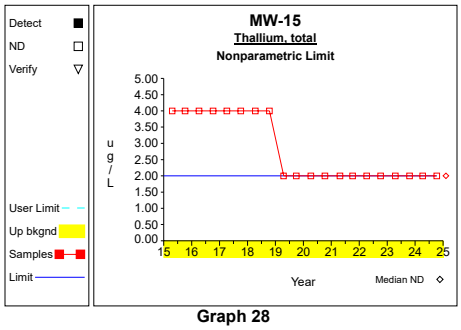
Graph 25



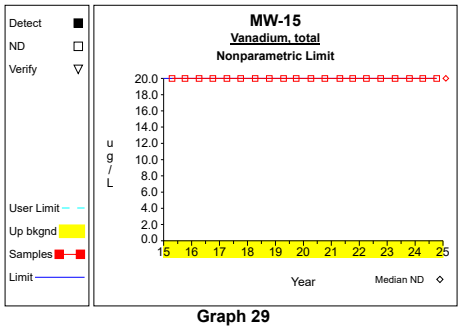
Graph 26



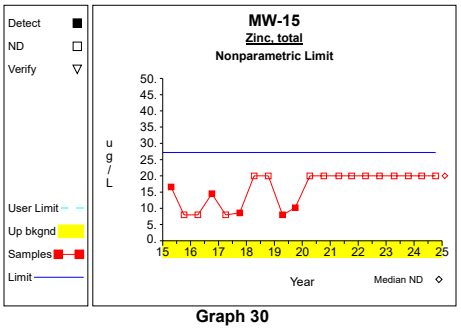
Graph 27



Graph 28



Graph 29



Graph 30

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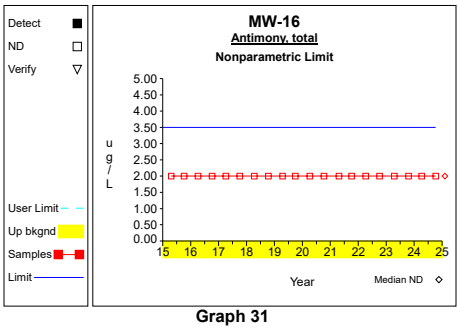
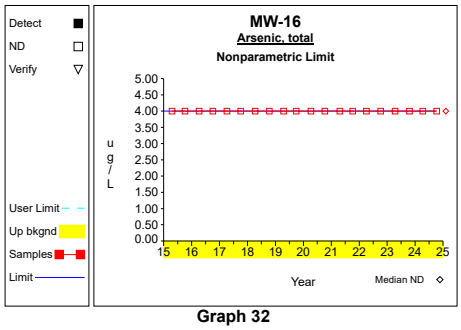
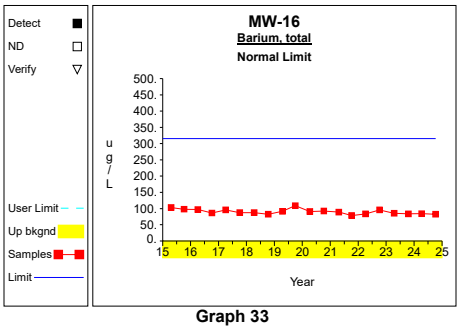
Up vs. Down Prediction Limits



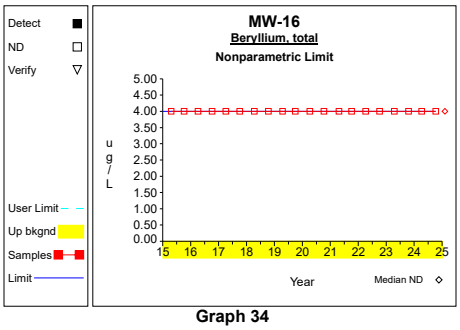
Graph 31



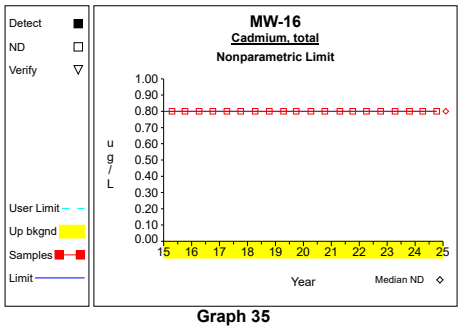
Graph 32



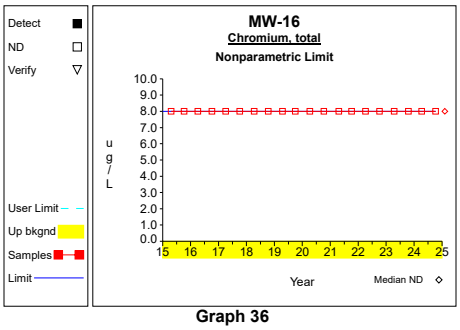
Graph 33



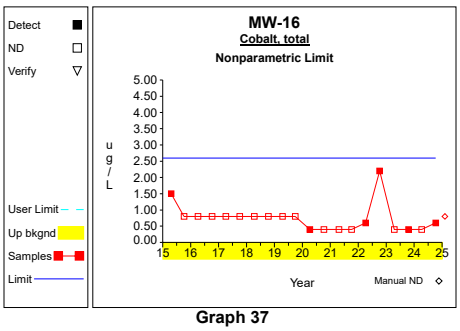
Graph 34



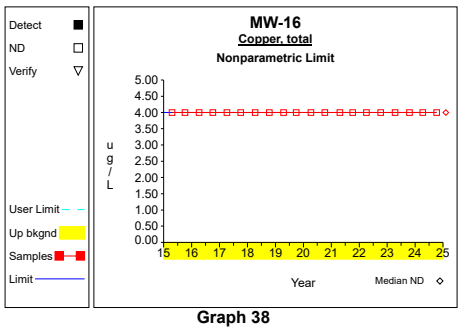
Graph 35



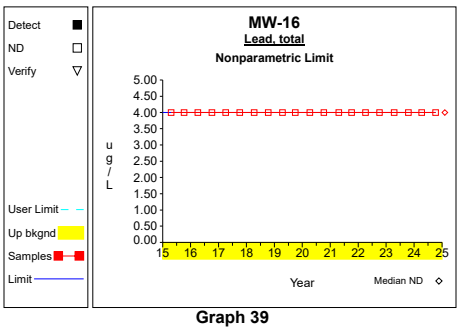
Graph 36



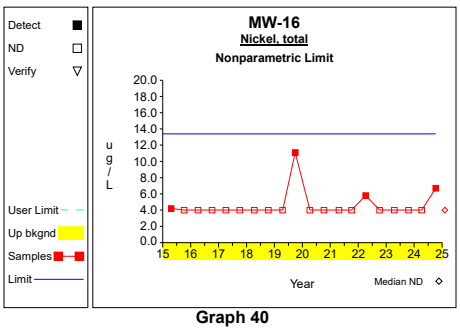
Graph 37



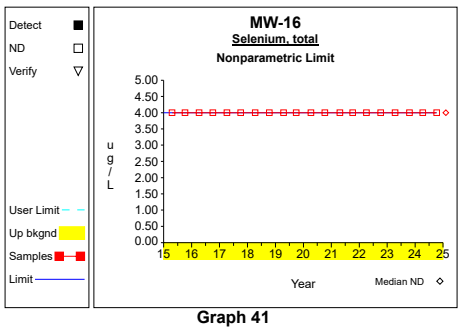
Graph 38



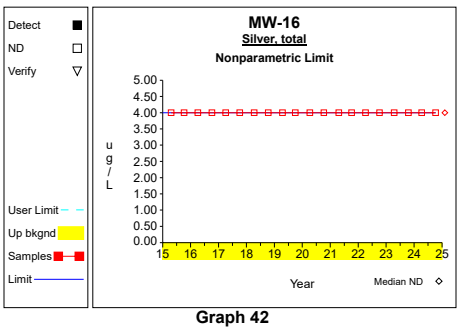
Graph 39



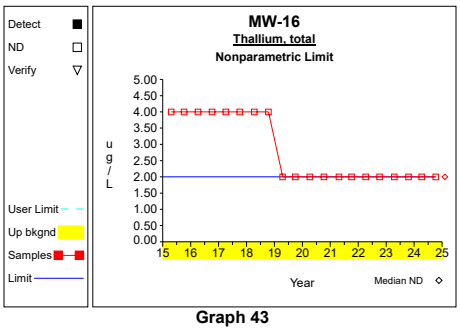
Graph 40



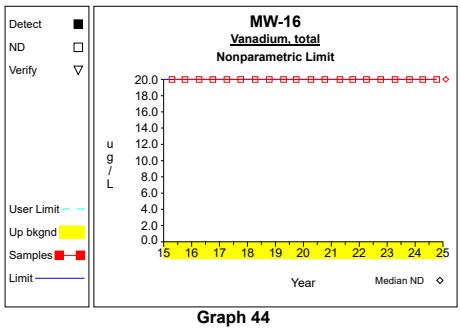
Graph 41



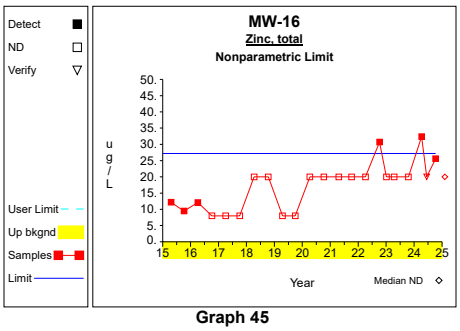
Graph 42



Graph 43



Graph 44



Graph 45

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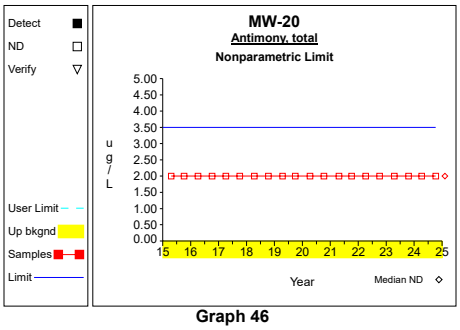
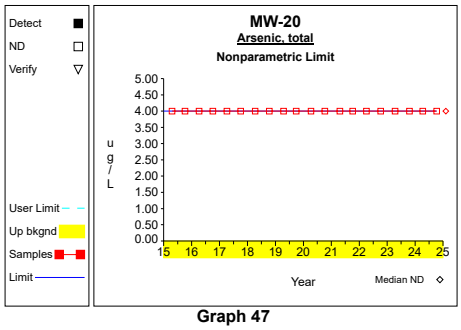
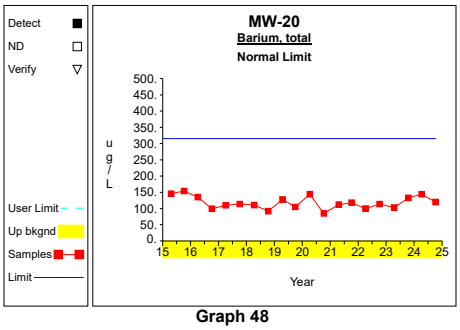
Up vs. Down Prediction Limits



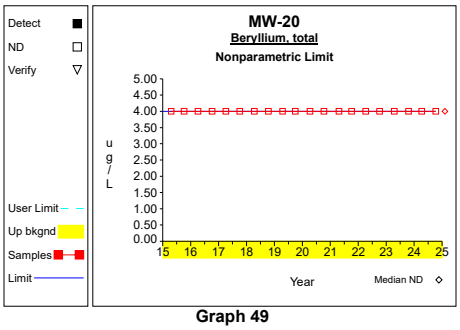
Graph 46



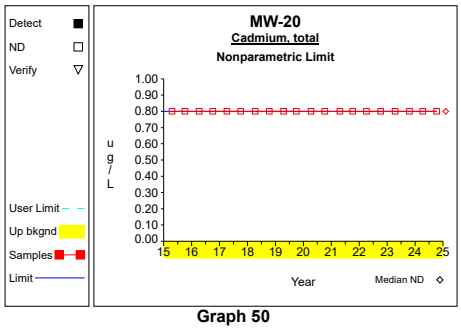
Graph 47



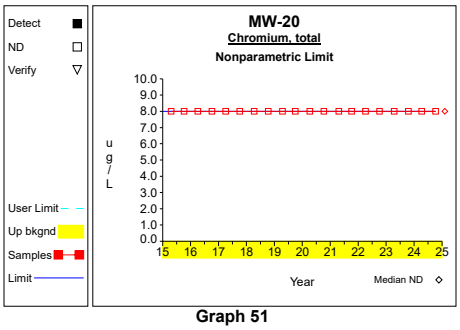
Graph 48



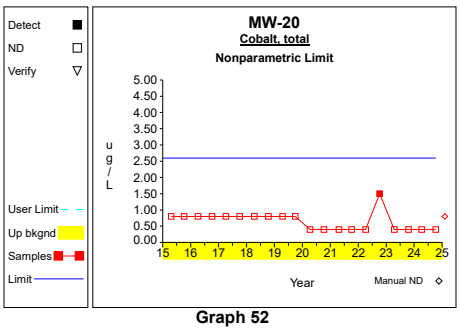
Graph 49



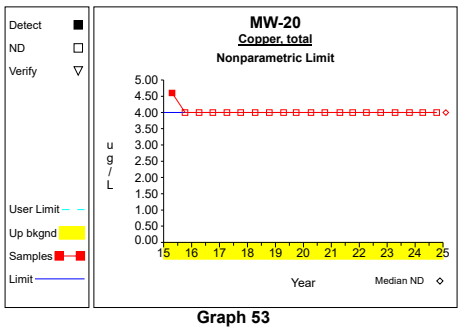
Graph 50



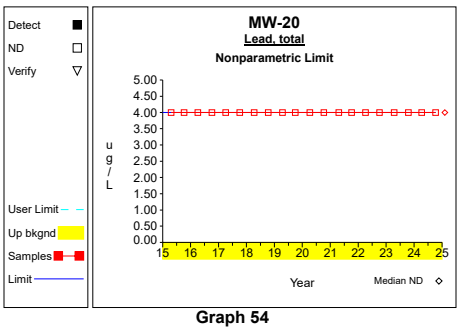
Graph 51



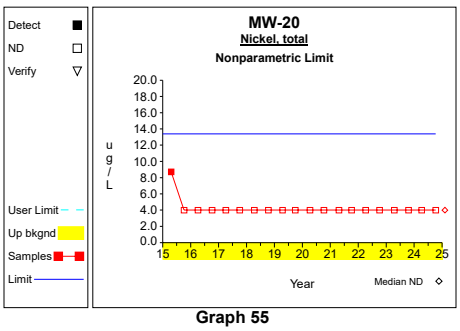
Graph 52



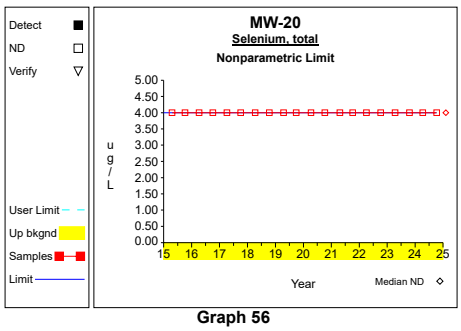
Graph 53



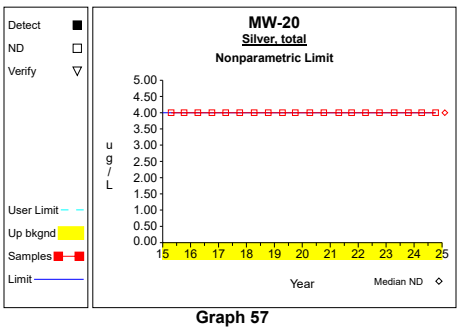
Graph 54



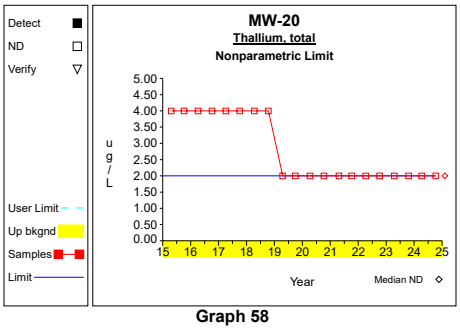
Graph 55



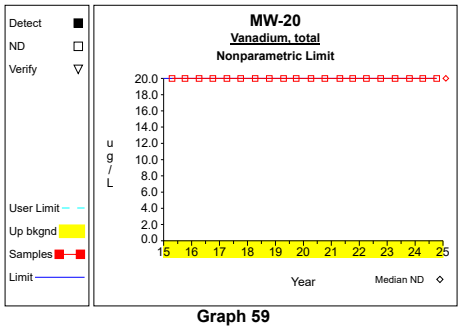
Graph 56



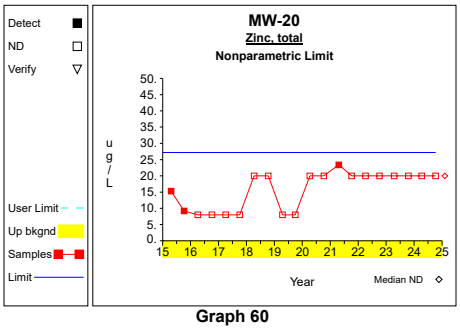
Graph 57



Graph 58



Graph 59



Graph 60

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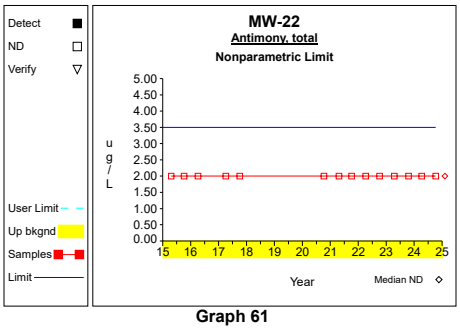
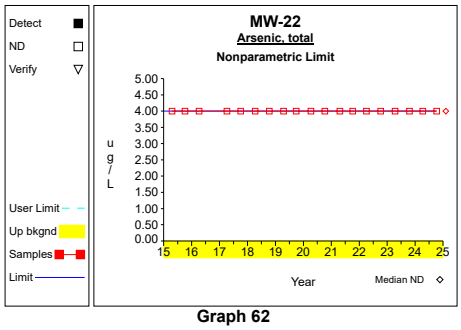
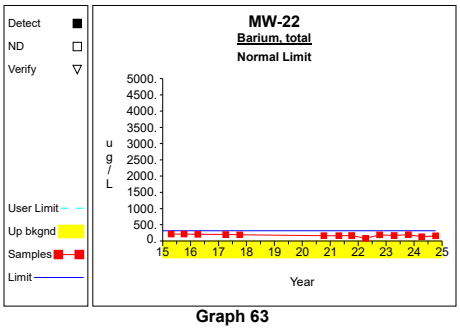
Up vs. Down Prediction Limits



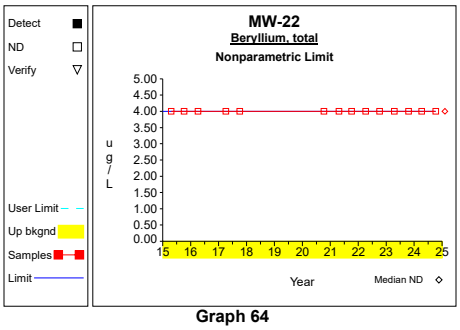
Graph 61



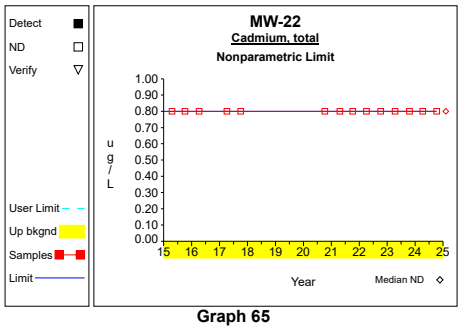
Graph 62



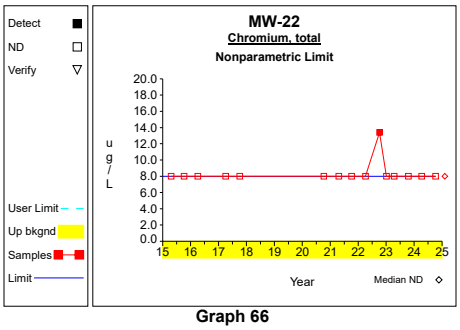
Graph 63



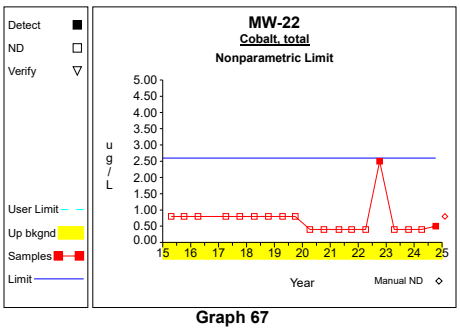
Graph 64



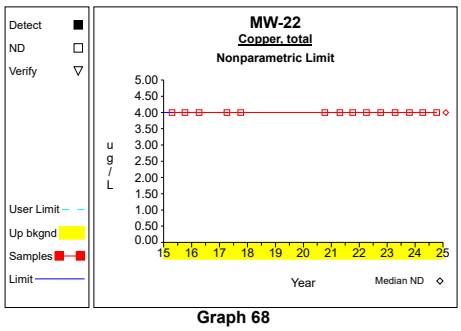
Graph 65



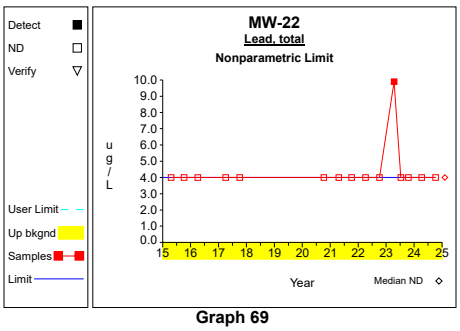
Graph 66



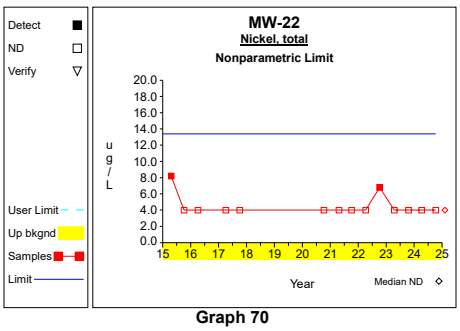
Graph 67



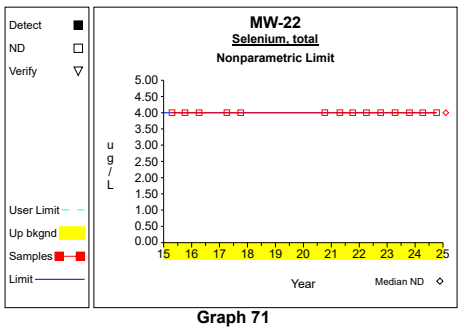
Graph 68



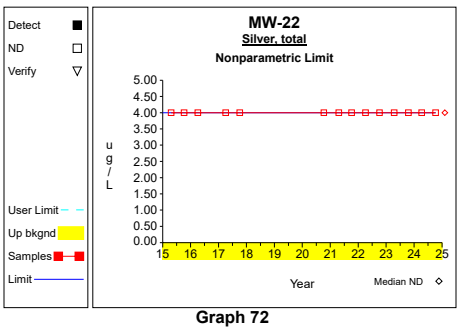
Graph 69



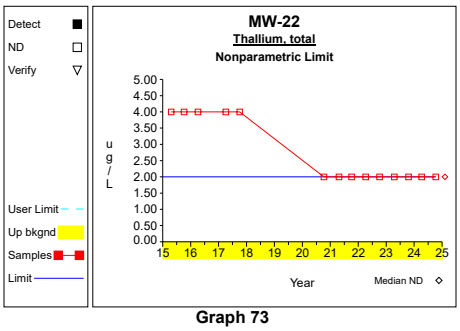
Graph 70



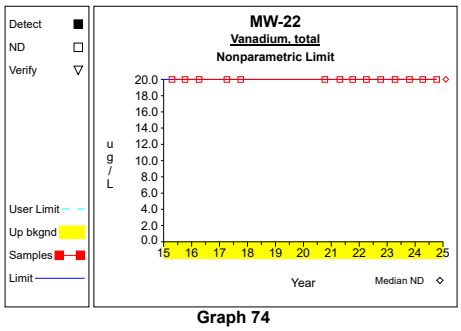
Graph 71



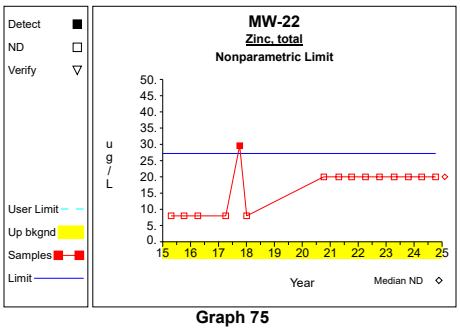
Graph 72



Graph 73



Graph 74



Graph 75

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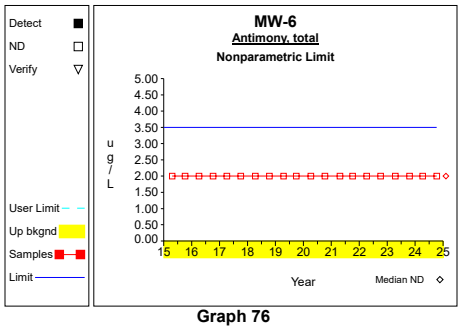
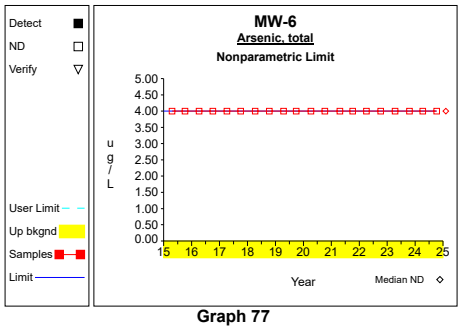
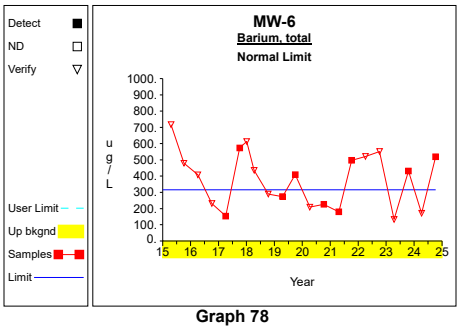
Up vs. Down Prediction Limits



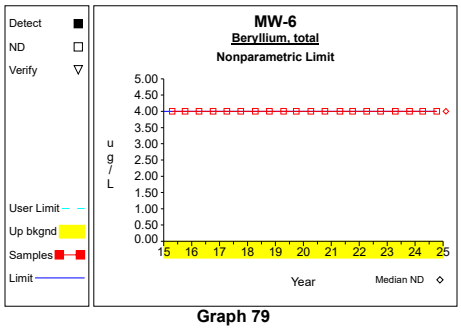
Graph 76



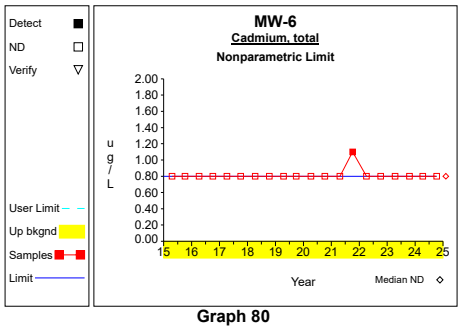
Graph 77



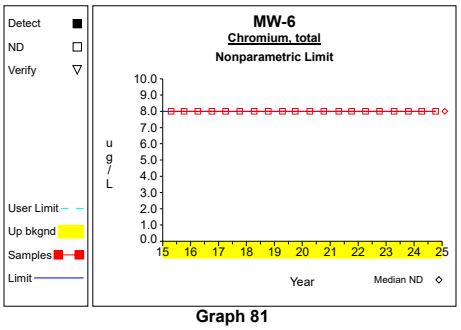
Graph 78



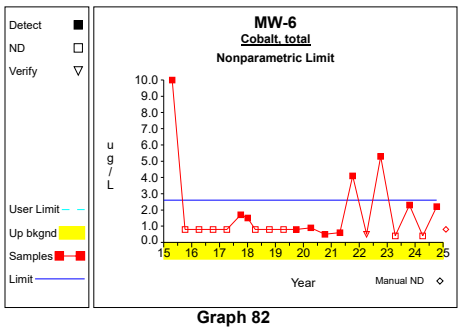
Graph 79



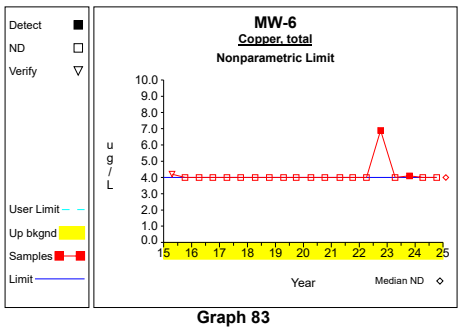
Graph 80



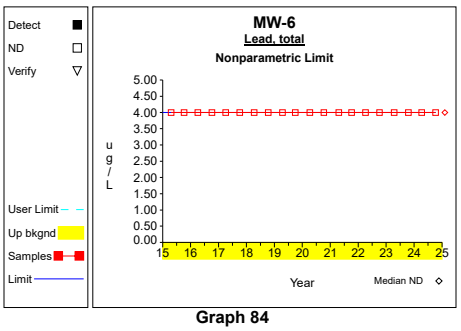
Graph 81



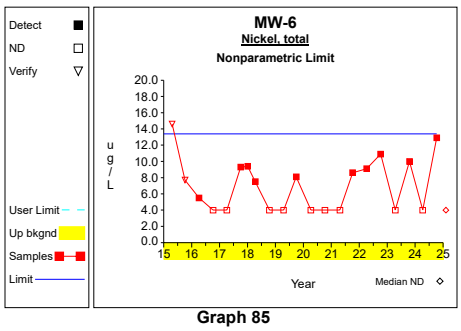
Graph 82



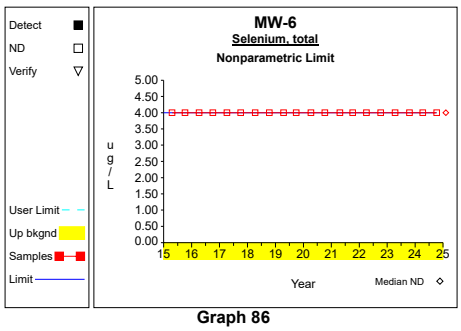
Graph 83



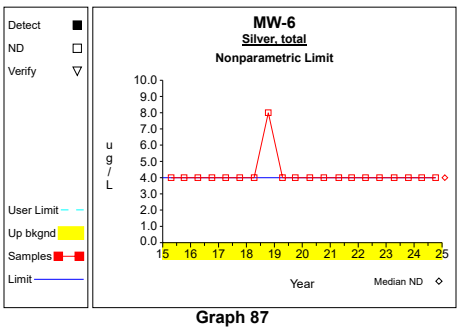
Graph 84



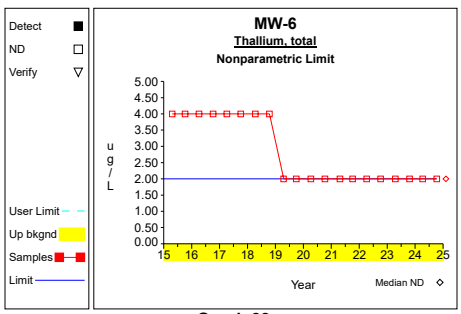
Graph 85



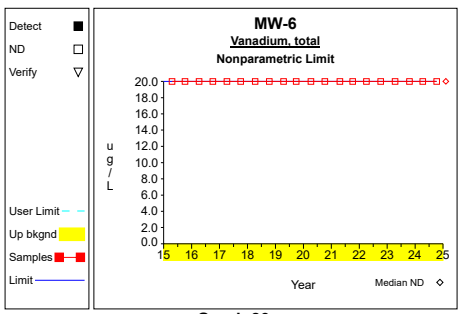
Graph 86



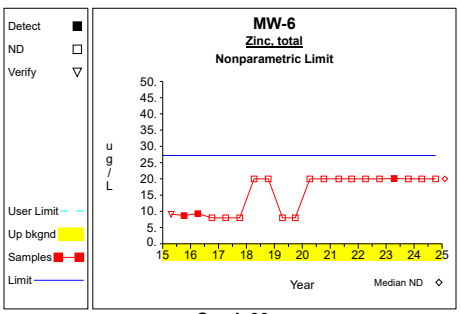
Graph 87



Graph 88



Graph 89



Graph 90

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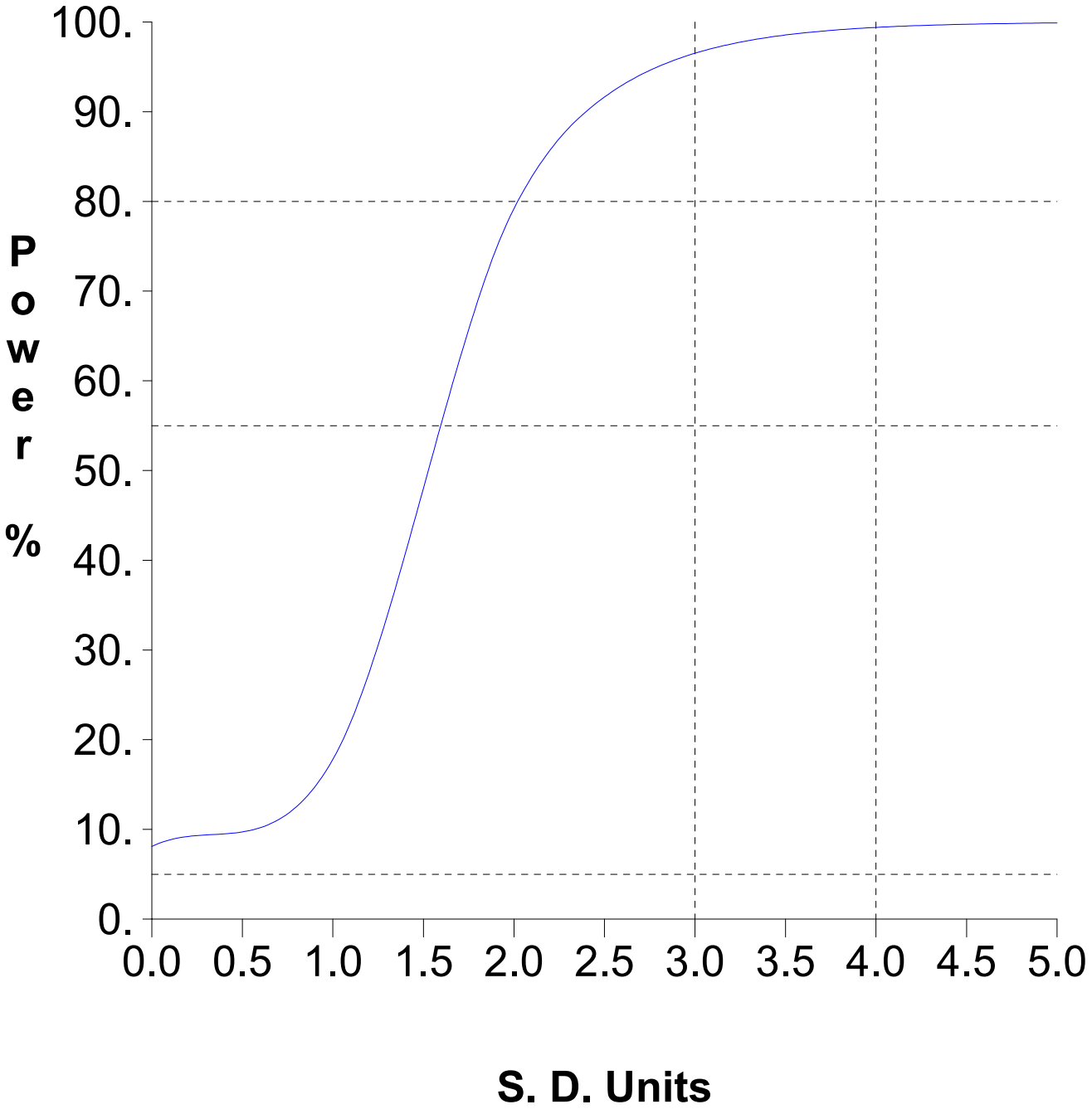
False Positive and False Negative Rates for Current

Upgradient vs. Downgradient Monitoring Program



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

Step	Equation	Description
1	PL = max(X) = **3.5**	Compute nonparametric prediction limit as largest background measurement.
2	Conf = **0.977**	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

Step	Equation	Description
1	PL = median(X) = **4.0**	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = **0.977**	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

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

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **5443.0** / **21** = **259.19**	Compute upgradient mean.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**1.42**x**10^6** - **2.96**x**10^7**/**21**) / (**21**-1))^{½} = **21.718**	Compute upgradient sd.
3	alpha = min[(1-.95$^{1/\mathbf{K}}$)^{½}, .01] = min[(1-.95$^{1/\mathbf{90}}$)^{½}, .01] = **0.01**	Adjusted per comparison false positive rate. Pass initial or 1 resample.
4	PL = $\overline{\mathbf{X}}$ + **tS**(1+1/**N**)^{½} = **259.19** + (**2.527*****21.718**)(1+1/**21**)^{½} = **315.365**	One-sided normal 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

Step	Equation	Description
1	PL = median(X) = **4.0**	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = **0.977**	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

Step	Equation	Description
1	PL = median(X) = **0.8**	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = **0.977**	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

Step	Equation	Description
1	PL = median(X) = **8.0**	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = **0.977**	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

Step	Equation	Description
1	PL = max(X) = **2.6**	Compute nonparametric prediction limit as largest background measurement.
2	Conf = **0.977**	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

Step	Equation	Description
1	PL = median(X) = **4.0**	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = **0.977**	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

Step	Equation	Description
1	PL = median(X) = **4.0**	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = **0.977**	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

Step	Equation	Description
1	PL = max(X) = **13.4**	Compute nonparametric prediction limit as largest background measurement.
2	Conf = **0.977**	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

Step	Equation	Description
1	PL = median(X) = **4.0**	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = **0.977**	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

Step	Equation	Description
1	PL = median(X) = **4.0**	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = **0.977**	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

Step	Equation	Description
1	PL = median(X) = **2.0**	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = **0.977**	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

Step	Equation	Description
1	PL = median(X) = **20.0**	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = **0.977**	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

Step	Equation	Description
1	PL = max(X) = **27.2**	Compute nonparametric prediction limit as largest background measurement.
2	Conf = **0.977**	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

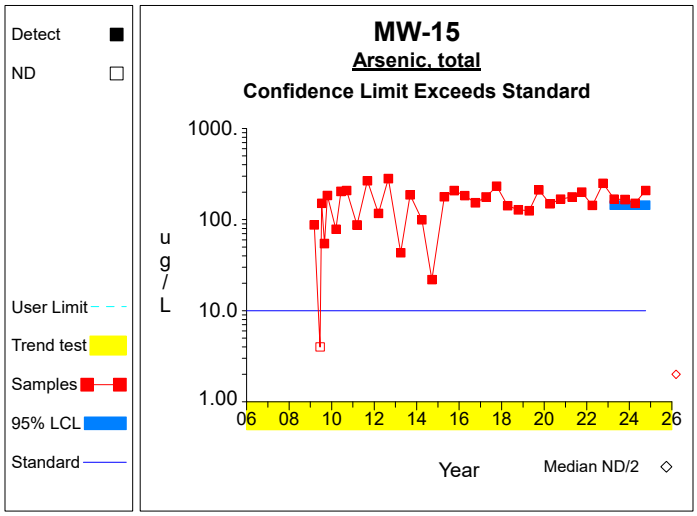
Table 1

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

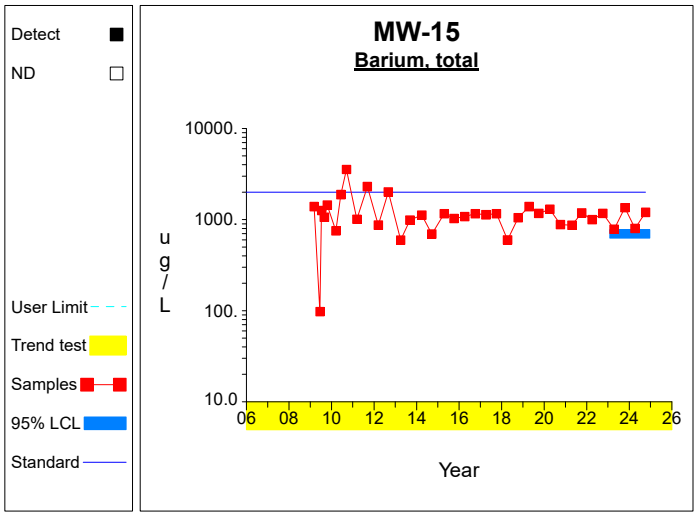
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Arsenic, total	ug/L	MW-15	4	173.500	24.853	1.176	144.266	202.734	10.000		**
Barium, total	ug/L	MW-15	4	1033.250	285.871	1.176	696.983	1369.517	2000.000		
Cobalt, total	ug/L	MW-15	4	14.650	1.290	1.176	13.133	16.167	2.100	dec	**
Nickel, total	ug/L	MW-15	4	70.750	11.155	1.176	57.628	83.872	100.000		
Zinc, total	ug/L	MW-15	4	10.000	0.000	1.176	10.000	10.000	2000.000	dec	
Arsenic, total	ug/L	MW-16	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-16	4	84.075	1.072	1.176	82.814	85.336	2000.000	dec	
Cobalt, total	ug/L	MW-16	4	0.450	0.100	1.176	0.332	0.568	2.100		
Nickel, total	ug/L	MW-16	4	3.175	2.350	1.176	0.411	5.939	100.000		
Zinc, total	ug/L	MW-16	4	22.000	9.471	1.176	10.859	33.141	2000.000		
Arsenic, total	ug/L	MW-6	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-6	4	313.500	190.546	1.176	89.363	537.637	2000.000	dec	
Cobalt, total	ug/L	MW-6	4	1.325	1.069	1.176	0.068	2.582	2.100		
Nickel, total	ug/L	MW-6	4	6.725	5.583	1.176	0.158	13.292	100.000	dec	
Zinc, total	ug/L	MW-6	4	12.525	5.050	1.176	6.585	18.465	2000.000		

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

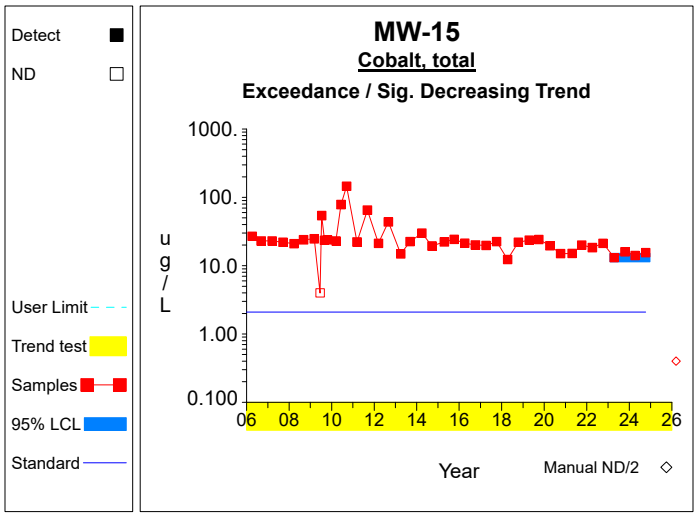
Confidence Limits (Assessment)



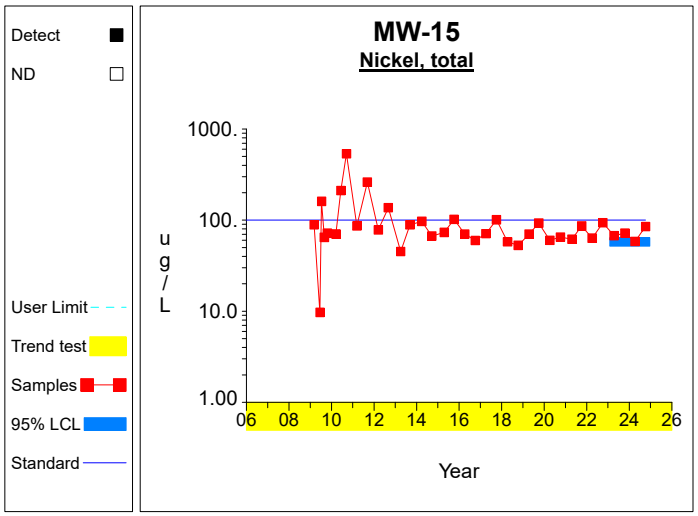
Graph 1



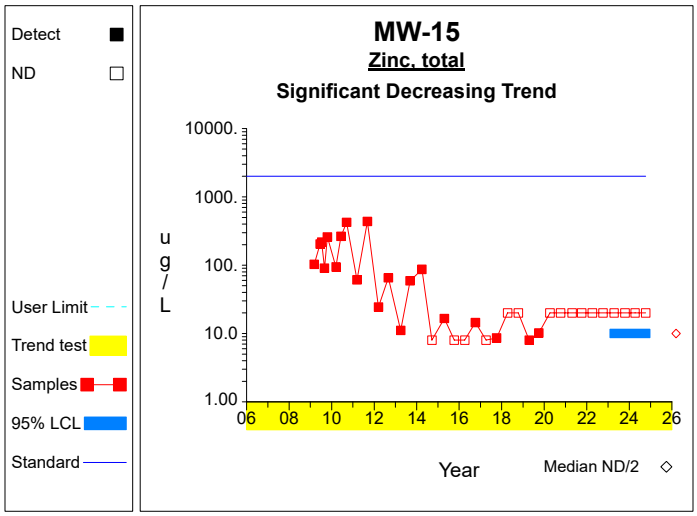
Graph 2



Graph 3



Graph 4



Graph 5

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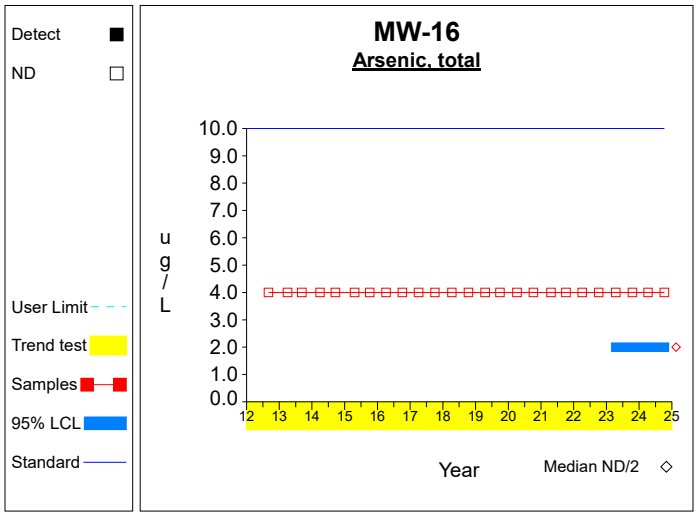
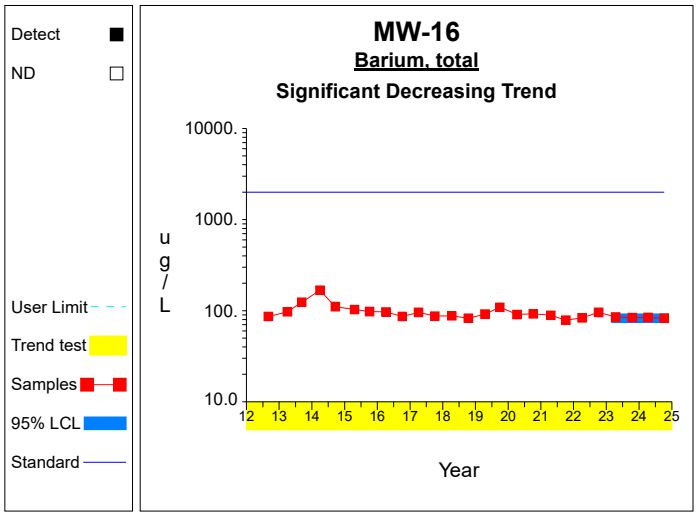
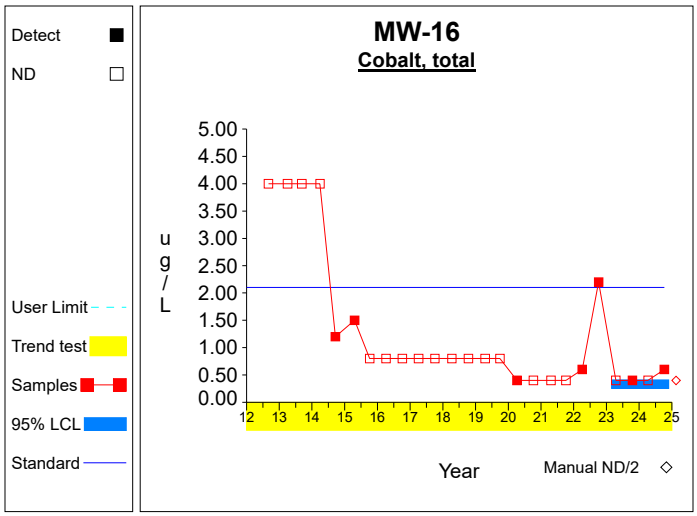
Confidence Limits (Assessment)



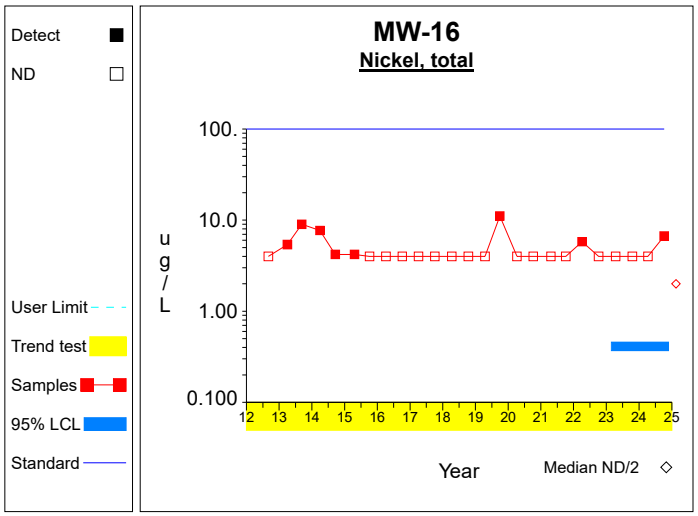
Graph 6



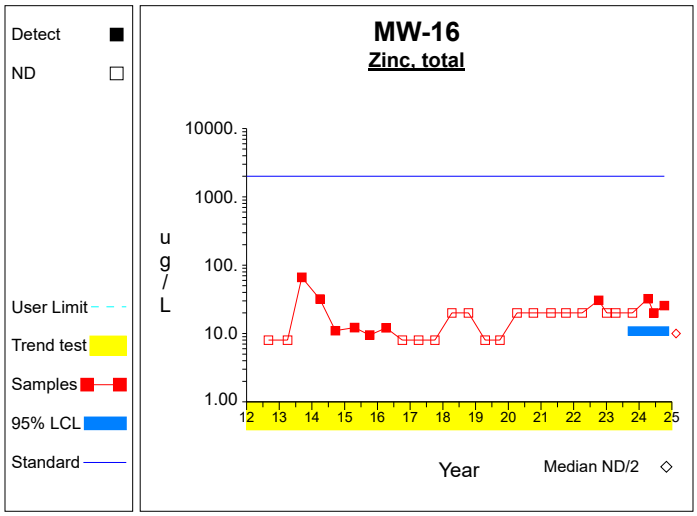
Graph 7



Graph 8

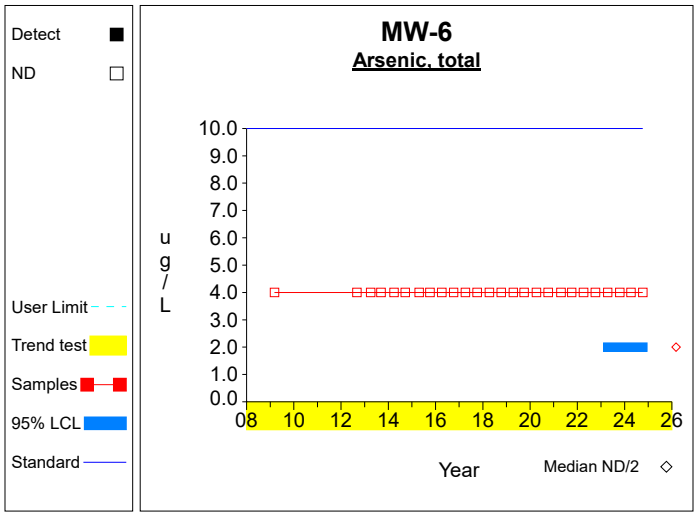


Graph 9

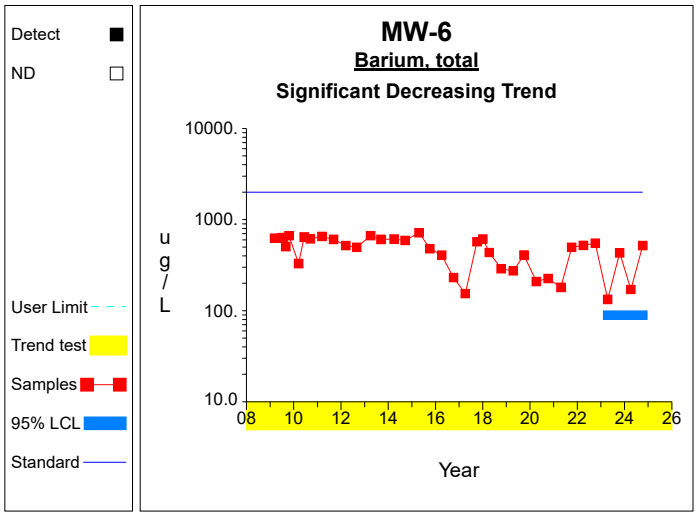


Graph 10

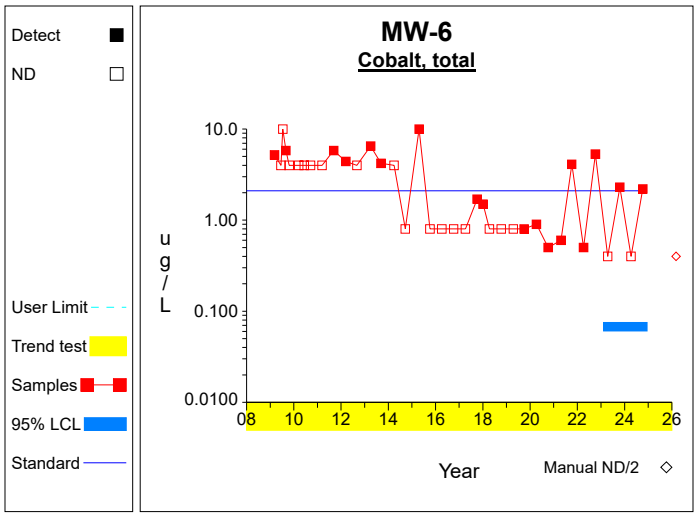
Confidence Limits (Assessment)



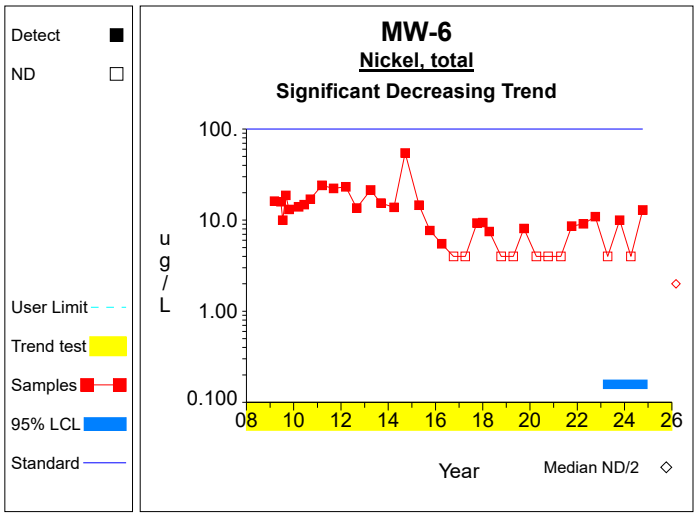
Graph 11



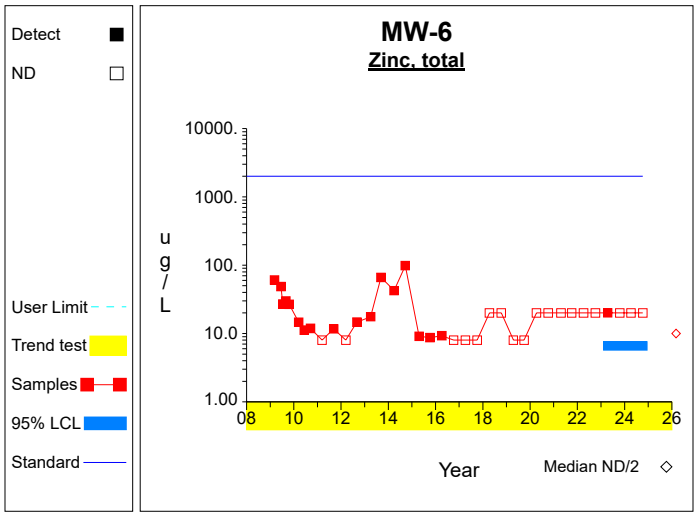
Graph 12



Graph 13



Graph 14



Graph 15

Prepared by: Otter Creek Environmental

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **694.0** / **4** = **173.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**122262.0** - **481636.0**/**4**) / (**4**-1))^{½} = **24.853**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **173.5** - **2.353** * **24.853**/**4**^{½} = **144.266**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **173.5** + **2.353** * **24.853**/**4**^{½} = **202.734**	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 = **4.33**	Sen's estimator of trend.
7	var(S) = **5386.0**	Variance estimate for slope.
8	M(S) = (**N**' ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**630** ± **2.576** * **5386.0**^{½}) / 2 = [**220.474**, **409.526**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-2.199**, **10.415**]	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-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **4133.0** / **4** = **1033.25**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**4.52**x**10^6** - **1.71**x**10^7**/**4**) / (**4**-1))^{½} = **285.871**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **1033.25** - **2.353** * **285.871**/**4**^{½} = **696.983**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **1033.25** + **2.353** * **285.871**/**4**^{½} = **1369.517**	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 = **-5.494**	Sen's estimator of trend.
7	var(S) = **5384.333**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**630** ± **2.576** * **5384.333**^{½}) / 2 = [**220.489**, **409.511**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-43.603**, **25.022**]	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-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **58.6** / **4** = **14.65**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**863.48** - **3433.96**/**4**) / (**4**-1))^{½} = **1.29**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **14.65** - **2.353** * **1.29**/**4**^{½} = **13.133**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **14.65** + **2.353** * **1.29**/**4**^{½} = **16.167**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **42** * (**42**-1) / 2 = **861**	Number of sample pairs during trend detection period.
6	S = **-0.488**	Sen's estimator of trend.
7	var(S) = **8507.667**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**861** ± **2.576** * **8507.667**^{½}) / 2 = [**311.699**, **549.301**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-0.904**, **-0.17**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
Nickel, total (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **283.0** / **4** = **70.75**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**20395.56** - **80089.0**/**4**) / (**4**-1))^{½} = **11.155**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **70.75** - **2.353** * **11.155**/**4**^{½} = **57.628**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **70.75** + **2.353** * **11.155**/**4**^{½} = **83.872**	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 = **-1.178**	Sen's estimator of trend.
7	var(S) = **5388.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**630** ± **2.576** * **5388.0**^{½}) / 2 = [**220.457**, **409.543**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-4.205**, **0.97**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Zinc, total (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **40.0** / **4** = **10.0**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**400.0** - **1600.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **10.0** - **2.353** * **0.0**/**4**^{½} = **10.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **10.0** + **2.353** * **0.0**/**4**^{½} = **10.0**	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 = **-5.76**	Sen's estimator of trend.
7	var(S) = **4896.667**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**630** ± **2.576** * **4896.667**^{½}) / 2 = [**224.871**, **405.129**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-11.531**, **-0.549**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-16

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **8.0** / **4** = **2.0**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**16.0** - **64.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **2.0** - **2.353** * **0.0**/**4**^{½} = **2.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **2.0** + **2.353** * **0.0**/**4**^{½} = **2.0**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **0.0**^{½}) / 2 = [**150.0**, **150.0**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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-16

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **336.3** / **4** = **84.075**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**28277.87** - **113097.69**/**4**) / (**4**-1))^{½} = **1.072**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **84.075** - **2.353** * **1.072**/**4**^{½} = **82.814**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **84.075** + **2.353** * **1.072**/**4**^{½} = **85.336**	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 = **-1.721**	Sen's estimator of trend.
7	var(S) = **1832.333**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **1832.333**^{½}) / 2 = [**94.866**, **205.134**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-3.663**, **-0.395**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
Cobalt, total (ug/L) at MW-16

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **1.8** / **4** = **0.45**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**0.84** - **3.24**/**4**) / (**4**-1))^{½} = **0.1**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **0.45** - **2.353** * **0.1**/**4**^{½} = **0.332**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **0.45** + **2.353** * **0.1**/**4**^{½} = **0.568**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **882.333**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **882.333**^{½}) / 2 = [**111.741**, **188.259**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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
Nickel, total (ug/L) at MW-16

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **12.7** / **4** = **3.175**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**56.89** - **161.29**/**4**) / (**4**-1))^{½} = **2.35**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **3.175** - **2.353** * **2.35**/**4**^{½} = **0.411**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **3.175** + **2.353** * **2.35**/**4**^{½} = **5.939**	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 = **0.0**	Sen's estimator of trend.
7	var(S) = **1243.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**300** ± **2.576** * **1243.0**^{½}) / 2 = [**104.59**, **195.41**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-0.141**, **0.0**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Zinc, total (ug/L) at MW-16

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **88.0** / **4** = **22.0**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**2205.12** - **7744.0**/**4**) / (**4**-1))^{½} = **9.471**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **22.0** - **2.353** * **9.471**/**4**^{½} = **10.859**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **22.0** + **2.353** * **9.471**/**4**^{½} = **33.141**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **27** * (**27**-1) / 2 = **351**	Number of sample pairs during trend detection period.
6	S = **0.0**	Sen's estimator of trend.
7	var(S) = **1711.667**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**351** ± **2.576** * **1711.667**^{½}) / 2 = [**122.212**, **228.788**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **8.0** / **4** = **2.0**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**16.0** - **64.0**/**4**) / (**4**-1))^{½} = **0.0**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **2.0** - **2.353** * **0.0**/**4**^{½} = **2.0**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **2.0** + **2.353** * **0.0**/**4**^{½} = **2.0**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **26** * (**26**-1) / 2 = **325**	Number of sample pairs during trend detection period.
6	S = **0.0**	Sen's estimator of trend.
7	var(S) = **0.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**325** ± **2.576** * **0.0**^{½}) / 2 = [**162.5**, **162.5**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	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-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **1254.0** / **4** = **313.5**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**502052.0** - **1.57**x**10^6**/**4**) / (**4**-1))^{½} = **190.546**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **313.5** - **2.353** * **190.546**/**4**^{½} = **89.363**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **313.5** + **2.353** * **190.546**/**4**^{½} = **537.637**	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 = **-17.414**	Sen's estimator of trend.
7	var(S) = **5843.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**666** ± **2.576** * **5843.0**^{½}) / 2 = [**234.546**, **431.454**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-36.104**, **-6.512**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

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

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **5.3** / **4** = **1.325**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**10.45** - **28.09**/**4**) / (**4**-1))^{½} = **1.069**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **1.325** - **2.353** * **1.069**/**4**^{½} = **0.068**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **1.325** + **2.353** * **1.069**/**4**^{½} = **2.582**	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	var(S) = **5027.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**666** ± **2.576** * **5027.0**^{½}) / 2 = [**241.679**, **424.321**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**0.0**, **0.019**]	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-6

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **26.9** / **4** = **6.725**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**274.41** - **723.61**/**4**) / (**4**-1))^{½} = **5.583**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **6.725** - **2.353** * **5.583**/**4**^{½} = **0.158**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **6.725** + **2.353** * **5.583**/**4**^{½} = **13.292**	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 = **-0.83**	Sen's estimator of trend.
7	var(S) = **5753.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**666** ± **2.576** * **5753.0**^{½}) / 2 = [**235.307**, **430.693**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-1.395**, **-0.223**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

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

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **50.1** / **4** = **12.525**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**704.01** - **2510.01**/**4**) / (**4**-1))^{½} = **5.05**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **12.525** - **2.353** * **5.05**/**4**^{½} = **6.585**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **12.525** + **2.353** * **5.05**/**4**^{½} = **18.465**	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 = **-0.188**	Sen's estimator of trend.
7	var(S) = **4693.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**630** ± **2.576** * **4693.0**^{½}) / 2 = [**226.765**, **403.235**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-1.214**, **0.0**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Attachment C

Summary Table of Historical VOC Detections

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
1,4-dichlorobenzene	LPZ-6	10/07/2020		6.5	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	4/22/2021		6.4	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	10/05/2021		6.0	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	4/04/2022		2.2	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	10/05/2022		6.0	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	4/14/2023		5.3	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	10/18/2023		2.4	1.0	ug/L
1,4-dichlorobenzene	LPZ-6	4/08/2024		9.2	1.0	ug/L
2-hexanone (mbk)	LPZ-6	4/08/2024		50.8	5.0	ug/L
Benzene	LPZ-6	4/16/2019		10.5	1.0	ug/L
Benzene	LPZ-6	10/07/2020		10.6	1.0	ug/L
Benzene	LPZ-6	4/22/2021		9.4	1.0	ug/L
Benzene	LPZ-6	10/05/2021		8.8	1.0	ug/L
Benzene	LPZ-6	4/04/2022		1.2	1.0	ug/L
Benzene	LPZ-6	10/05/2022		9.3	1.0	ug/L
Benzene	LPZ-6	4/14/2023		13.6	1.0	ug/L
Benzene	LPZ-6	4/08/2024		17.7	1.0	ug/L
Carbon disulfide	LPZ-6	10/05/2022		2	1	ug/L
Chlorobenzene	LPZ-6	4/16/2019		2.7	1.0	ug/L
Chlorobenzene	LPZ-6	10/07/2020		2.4	1.0	ug/L
Chlorobenzene	LPZ-6	4/22/2021		2.0	1.0	ug/L
Chlorobenzene	LPZ-6	10/05/2021		2.0	1.0	ug/L
Chlorobenzene	LPZ-6	10/05/2022		1.3	1.0	ug/L
Chlorobenzene	LPZ-6	4/14/2023		1.3	1.0	ug/L
Chlorobenzene	LPZ-6	4/08/2024		1.7	1.0	ug/L
Chloroethane	LPZ-6	4/22/2021		1.6	1.0	ug/L
Chloroethane	LPZ-6	10/18/2023		1.2	1.0	ug/L
Chloroethane	LPZ-6	4/08/2024		1.3	1.0	ug/L
Ethylbenzene	LPZ-6	4/16/2019		43.6	1.0	ug/L
Ethylbenzene	LPZ-6	10/07/2020		52.0	1.0	ug/L
Ethylbenzene	LPZ-6	4/22/2021		27.4	1.0	ug/L
Ethylbenzene	LPZ-6	10/05/2021		1.6	1.0	ug/L
Ethylbenzene	LPZ-6	4/04/2022		2.6	1.0	ug/L
Ethylbenzene	LPZ-6	10/05/2022		2.1	1.0	ug/L
Ethylbenzene	LPZ-6	4/14/2023		7.4	1.0	ug/L
Ethylbenzene	LPZ-6	4/08/2024		7.6	1.0	ug/L
Styrene	LPZ-6	4/08/2024		1.5	1.0	ug/L
Toluene	LPZ-6	10/07/2020		1.4	1.0	ug/L
Toluene	LPZ-6	10/05/2022		1.0	1.0	ug/L
Toluene	LPZ-6	4/08/2024		1.0	1.0	ug/L
Xylenes, total	LPZ-6	4/16/2019		9.5	2.0	ug/L
Xylenes, total	LPZ-6	10/07/2020		99.1	2.0	ug/L
Xylenes, total	LPZ-6	4/22/2021		27.5	2.0	ug/L
Xylenes, total	LPZ-6	10/05/2021		4.9	2.0	ug/L
Xylenes, total	LPZ-6	4/04/2022		2.4	2.0	ug/L
Xylenes, total	LPZ-6	10/05/2022		22.3	2.0	ug/L
Xylenes, total	LPZ-6	4/14/2023		22.6	2.0	ug/L
Xylenes, total	LPZ-6	10/18/2023		3.8	2.0	ug/L
Xylenes, total	LPZ-6	4/08/2024		95.0	2.0	ug/L
Acetone	MW-11	10/03/2017		20.6	10.0	ug/L
Acetone	MW-12	10/03/2017		19.6	10.0	ug/L
1,1-dichloroethylene	MW-15	4/08/2024		1	1	ug/L
1,4-dichlorobenzene	MW-15	4/06/2006		2.3	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/07/2006		2.4	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/14/2007		2.1	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/19/2007		2.3	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/25/2008		3.0	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/05/2008		3.0	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/06/2009		2.8	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/06/2009		2.8	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/20/2009		2.7	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/15/2010		2.5	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/15/2010		2.5	1.0	ug/L
1,4-dichlorobenzene	MW-15	6/10/2010		2.0	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/14/2010		1.9	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/14/2010		1.9	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/11/2011		3.5	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/11/2011		3.5	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/07/2011		3.9	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/01/2012		3.6	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/01/2013		1.8	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/09/2013		3.0	1.0	ug/L
1,4-dichlorobenzene	MW-15	3/30/2014		3.1	1.0	ug/L
1,4-dichlorobenzene	MW-15	9/19/2014		2.9	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/20/2015		2.4	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/05/2015		2.7	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

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
1,4-dichlorobenzene	MW-15	4/05/2016		2.2	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/05/2016		2.5	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/04/2017		2.0	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/03/2017		2.8	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/10/2018		2.6	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/07/2020		2.0	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/07/2020		1.9	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/22/2021		1.8	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/05/2021		2.1	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/04/2022		1.8	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/05/2022		2.2	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/14/2023		1.9	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/18/2023		1.7	1.0	ug/L
1,4-dichlorobenzene	MW-15	4/08/2024		2.1	1.0	ug/L
1,4-dichlorobenzene	MW-15	10/08/2024		1.6	1.0	ug/L
Acetone	MW-15	9/19/2014		13.1	10.0	ug/L
Acetone	MW-15	4/20/2015		51.3	10.0	ug/L
Acetone	MW-15	10/05/2016		26.3	10.0	ug/L
Benzene	MW-15	4/06/2006		10.0	1.0	ug/L
Benzene	MW-15	9/07/2006		7.8	1.0	ug/L
Benzene	MW-15	3/14/2007		10.3	1.0	ug/L
Benzene	MW-15	9/19/2007		7.6	1.0	ug/L
Benzene	MW-15	3/25/2008		8.9	1.0	ug/L
Benzene	MW-15	9/05/2008		9.4	1.0	ug/L
Benzene	MW-15	3/06/2009		11.5	1.0	ug/L
Benzene	MW-15	10/20/2009		12.3	1.0	ug/L
Benzene	MW-15	3/15/2010		10.9	1.0	ug/L
Benzene	MW-15	3/15/2010		10.9	1.0	ug/L
Benzene	MW-15	6/10/2010		11.7	1.0	ug/L
Benzene	MW-15	9/14/2010		8.2	1.0	ug/L
Benzene	MW-15	9/14/2010		8.2	1.0	ug/L
Benzene	MW-15	3/11/2011		13.9	1.0	ug/L
Benzene	MW-15	3/11/2011		13.9	1.0	ug/L
Benzene	MW-15	9/07/2011		11.8	1.0	ug/L
Benzene	MW-15	9/01/2012		9.5	1.0	ug/L
Benzene	MW-15	4/01/2013		7.1	1.0	ug/L
Benzene	MW-15	9/09/2013		6.3	1.0	ug/L
Benzene	MW-15	3/30/2014		10.0	1.0	ug/L
Benzene	MW-15	9/19/2014		7.4	1.0	ug/L
Benzene	MW-15	4/20/2015		7.8	1.0	ug/L
Benzene	MW-15	10/05/2015		5.8	1.0	ug/L
Benzene	MW-15	4/05/2016		7.7	1.0	ug/L
Benzene	MW-15	10/05/2016		5.0	1.0	ug/L
Benzene	MW-15	4/04/2017		6.6	1.0	ug/L
Benzene	MW-15	10/03/2017		6.2	1.0	ug/L
Benzene	MW-15	4/10/2018		8.9	1.0	ug/L
Benzene	MW-15	10/12/2018		5.6	1.0	ug/L
Benzene	MW-15	4/16/2019		6.9	1.0	ug/L
Benzene	MW-15	9/30/2019		3.6	1.0	ug/L
Benzene	MW-15	4/07/2020		5.1	1.0	ug/L
Benzene	MW-15	10/07/2020		3.5	1.0	ug/L
Benzene	MW-15	4/22/2021		6.1	1.0	ug/L
Benzene	MW-15	10/05/2021		3.0	1.0	ug/L
Benzene	MW-15	4/04/2022		4.8	1.0	ug/L
Benzene	MW-15	10/05/2022		4.1	1.0	ug/L
Benzene	MW-15	4/14/2023		4.2	1.0	ug/L
Benzene	MW-15	10/18/2023		1.4	1.0	ug/L
Benzene	MW-15	4/08/2024		4.0	1.0	ug/L
Benzene	MW-15	10/08/2024		2.8	1.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-15	4/01/2013		10	8	ug/L
Bis(2-ethylhexyl) phthalate	MW-15	3/30/2014		85	8	ug/L
Bis(2-ethylhexyl) phthalate	MW-15	10/05/2015		10	10	ug/L
Bis(2-ethylhexyl) phthalate	MW-15	4/16/2019		10	6	ug/L
Chlorobenzene	MW-15	4/06/2006		7.70	1.00	ug/L
Chlorobenzene	MW-15	9/07/2006		9.10	1.00	ug/L
Chlorobenzene	MW-15	3/14/2007		7.80	1.00	ug/L
Chlorobenzene	MW-15	9/19/2007		7.00	1.00	ug/L
Chlorobenzene	MW-15	3/25/2008		6.90	1.00	ug/L
Chlorobenzene	MW-15	9/05/2008		9.00	1.00	ug/L
Chlorobenzene	MW-15	3/06/2009		9.69	1.00	ug/L
Chlorobenzene	MW-15	3/06/2009		9.60	1.00	ug/L
Chlorobenzene	MW-15	10/20/2009		10.80	1.00	ug/L
Chlorobenzene	MW-15	3/15/2010		9.50	1.00	ug/L
Chlorobenzene	MW-15	3/15/2010		9.50	1.00	ug/L
Chlorobenzene	MW-15	6/10/2010		9.40	1.00	ug/L
Chlorobenzene	MW-15	9/14/2010		8.60	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
Chlorobenzene	MW-15	9/14/2010		8.60	1.00	ug/L
Chlorobenzene	MW-15	3/11/2011		17.40	1.00	ug/L
Chlorobenzene	MW-15	3/11/2011		17.40	1.00	ug/L
Chlorobenzene	MW-15	9/07/2011		14.30	1.00	ug/L
Chlorobenzene	MW-15	9/01/2012		17.00	1.00	ug/L
Chlorobenzene	MW-15	4/01/2013		8.50	1.00	ug/L
Chlorobenzene	MW-15	9/09/2013		17.50	1.00	ug/L
Chlorobenzene	MW-15	3/30/2014		15.40	1.00	ug/L
Chlorobenzene	MW-15	9/19/2014		14.20	1.00	ug/L
Chlorobenzene	MW-15	4/20/2015		13.50	1.00	ug/L
Chlorobenzene	MW-15	10/05/2015		12.80	1.00	ug/L
Chlorobenzene	MW-15	4/05/2016		11.20	1.00	ug/L
Chlorobenzene	MW-15	10/05/2016		14.40	1.00	ug/L
Chlorobenzene	MW-15	4/04/2017		10.40	1.00	ug/L
Chlorobenzene	MW-15	10/03/2017		12.60	1.00	ug/L
Chlorobenzene	MW-15	4/10/2018		11.10	1.00	ug/L
Chlorobenzene	MW-15	10/12/2018		8.70	1.00	ug/L
Chlorobenzene	MW-15	4/16/2019		9.60	1.00	ug/L
Chlorobenzene	MW-15	9/30/2019		9.40	1.00	ug/L
Chlorobenzene	MW-15	4/07/2020		9.00	1.00	ug/L
Chlorobenzene	MW-15	10/07/2020		8.30	1.00	ug/L
Chlorobenzene	MW-15	4/22/2021		7.40	1.00	ug/L
Chlorobenzene	MW-15	10/05/2021		8.10	1.00	ug/L
Chlorobenzene	MW-15	4/04/2022		7.80	1.00	ug/L
Chlorobenzene	MW-15	10/05/2022		6.90	1.00	ug/L
Chlorobenzene	MW-15	4/14/2023		6.50	1.00	ug/L
Chlorobenzene	MW-15	10/18/2023		4.20	1.00	ug/L
Chlorobenzene	MW-15	4/08/2024		6.10	1.00	ug/L
Chlorobenzene	MW-15	10/08/2024		4.70	1.00	ug/L
Chloroethane	MW-15	4/06/2006		21.5	1.0	ug/L
Chloroethane	MW-15	9/07/2006		23.1	1.0	ug/L
Chloroethane	MW-15	3/14/2007		20.2	1.0	ug/L
Chloroethane	MW-15	9/19/2007		15.6	1.0	ug/L
Chloroethane	MW-15	3/25/2008		12.7	1.0	ug/L
Chloroethane	MW-15	9/05/2008		19.1	1.0	ug/L
Chloroethane	MW-15	3/06/2009		16.6	1.0	ug/L
Chloroethane	MW-15	3/06/2009		16.6	1.0	ug/L
Chloroethane	MW-15	10/20/2009		18.9	1.0	ug/L
Chloroethane	MW-15	3/15/2010		17.9	1.0	ug/L
Chloroethane	MW-15	3/15/2010		17.9	1.0	ug/L
Chloroethane	MW-15	6/10/2010		21.2	1.0	ug/L
Chloroethane	MW-15	9/14/2010		14.0	1.0	ug/L
Chloroethane	MW-15	9/14/2010		14.0	1.0	ug/L
Chloroethane	MW-15	3/11/2011		20.7	1.0	ug/L
Chloroethane	MW-15	3/11/2011		20.7	1.0	ug/L
Chloroethane	MW-15	9/07/2011		19.3	1.0	ug/L
Chloroethane	MW-15	9/01/2012		16.4	1.0	ug/L
Chloroethane	MW-15	4/01/2013		11.2	1.0	ug/L
Chloroethane	MW-15	9/09/2013		20.3	1.0	ug/L
Chloroethane	MW-15	3/30/2014		15.4	1.0	ug/L
Chloroethane	MW-15	9/19/2014		16.3	1.0	ug/L
Chloroethane	MW-15	4/20/2015		14.1	1.0	ug/L
Chloroethane	MW-15	10/05/2015		10.2	1.0	ug/L
Chloroethane	MW-15	4/05/2016		12.9	1.0	ug/L
Chloroethane	MW-15	10/05/2016		10.6	1.0	ug/L
Chloroethane	MW-15	4/04/2017		12.0	1.0	ug/L
Chloroethane	MW-15	10/03/2017		8.4	1.0	ug/L
Chloroethane	MW-15	4/10/2018		12.3	1.0	ug/L
Chloroethane	MW-15	10/12/2018		8.6	1.0	ug/L
Chloroethane	MW-15	4/16/2019		8.5	1.0	ug/L
Chloroethane	MW-15	9/30/2019		8.8	1.0	ug/L
Chloroethane	MW-15	4/07/2020		9.0	1.0	ug/L
Chloroethane	MW-15	10/07/2020		9.4	1.0	ug/L
Chloroethane	MW-15	4/22/2021		9.8	1.0	ug/L
Chloroethane	MW-15	10/05/2021		6.3	1.0	ug/L
Chloroethane	MW-15	4/04/2022		8.3	1.0	ug/L
Chloroethane	MW-15	10/05/2022		7.5	1.0	ug/L
Chloroethane	MW-15	4/14/2023		4.6	1.0	ug/L
Chloroethane	MW-15	10/18/2023		3.8	1.0	ug/L
Chloroethane	MW-15	4/08/2024		4.4	1.0	ug/L
Chloroethane	MW-15	10/08/2024		4.2	1.0	ug/L
Dichlorodifluoromethane	MW-15	3/30/2014		2.5	1.0	ug/L
Dichlorodifluoromethane	MW-15	4/04/2017		1.0	1.0	ug/L
Ethylbenzene	MW-15	4/06/2006		37.2	1.0	ug/L
Ethylbenzene	MW-15	9/07/2006		16.7	1.0	ug/L
Ethylbenzene	MW-15	3/14/2007		31.2	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

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Ethylbenzene	MW-15	9/19/2007		9.7	1.0	ug/L
Ethylbenzene	MW-15	3/25/2008		31.2	1.0	ug/L
Ethylbenzene	MW-15	9/05/2008		22.3	1.0	ug/L
Ethylbenzene	MW-15	3/06/2009		67.6	1.0	ug/L
Ethylbenzene	MW-15	3/06/2009		67.6	1.0	ug/L
Ethylbenzene	MW-15	10/20/2009		83.0	1.0	ug/L
Ethylbenzene	MW-15	3/15/2010		60.6	1.0	ug/L
Ethylbenzene	MW-15	3/15/2010		60.6	1.0	ug/L
Ethylbenzene	MW-15	6/10/2010		16.2	1.0	ug/L
Ethylbenzene	MW-15	9/14/2010		22.4	1.0	ug/L
Ethylbenzene	MW-15	9/14/2010		22.4	1.0	ug/L
Ethylbenzene	MW-15	3/11/2011		90.8	1.0	ug/L
Ethylbenzene	MW-15	3/11/2011		90.8	1.0	ug/L
Ethylbenzene	MW-15	9/07/2011		21.8	1.0	ug/L
Ethylbenzene	MW-15	9/01/2012		19.3	1.0	ug/L
Ethylbenzene	MW-15	4/01/2013		31.6	1.0	ug/L
Ethylbenzene	MW-15	9/09/2013		9.0	1.0	ug/L
Ethylbenzene	MW-15	3/30/2014		39.0	1.0	ug/L
Ethylbenzene	MW-15	9/19/2014		15.3	1.0	ug/L
Ethylbenzene	MW-15	4/20/2015		6.5	1.0	ug/L
Ethylbenzene	MW-15	4/05/2016		10.5	1.0	ug/L
Ethylbenzene	MW-15	4/04/2017		4.9	1.0	ug/L
Ethylbenzene	MW-15	4/10/2018		5.1	1.0	ug/L
Toluene	MW-15	4/06/2006		1.1	1.0	ug/L
Toluene	MW-15	9/05/2008		1.0	1.0	ug/L
Toluene	MW-15	3/06/2009		2.6	1.0	ug/L
Toluene	MW-15	10/20/2009		3.3	1.0	ug/L
Toluene	MW-15	3/15/2010		1.1	1.0	ug/L
Toluene	MW-15	3/15/2010		1.1	1.0	ug/L
Toluene	MW-15	6/10/2010		1.2	1.0	ug/L
Toluene	MW-15	3/11/2011		1.8	1.0	ug/L
Toluene	MW-15	3/11/2011		1.8	1.0	ug/L
Xylenes, total	MW-15	4/06/2006		188.0	1.0	ug/L
Xylenes, total	MW-15	9/07/2006		84.6	1.0	ug/L
Xylenes, total	MW-15	3/14/2007		126.0	1.0	ug/L
Xylenes, total	MW-15	9/19/2007		50.8	1.0	ug/L
Xylenes, total	MW-15	3/25/2008		150.0	1.0	ug/L
Xylenes, total	MW-15	9/05/2008		91.4	1.0	ug/L
Xylenes, total	MW-15	3/06/2009		342.0	1.0	ug/L
Xylenes, total	MW-15	3/06/2009		342.0	2.0	ug/L
Xylenes, total	MW-15	10/20/2009		430.0	1.0	ug/L
Xylenes, total	MW-15	3/15/2010		302.0	1.0	ug/L
Xylenes, total	MW-15	3/15/2010		302.0	2.0	ug/L
Xylenes, total	MW-15	6/10/2010		117.0	2.0	ug/L
Xylenes, total	MW-15	9/14/2010		116.0	1.0	ug/L
Xylenes, total	MW-15	9/14/2010		116.0	2.0	ug/L
Xylenes, total	MW-15	3/11/2011		444.0	2.0	ug/L
Xylenes, total	MW-15	3/11/2011		444.0	1.0	ug/L
Xylenes, total	MW-15	9/07/2011		84.4	1.0	ug/L
Xylenes, total	MW-15	9/01/2012		93.1	2.0	ug/L
Xylenes, total	MW-15	4/01/2013		105.0	2.0	ug/L
Xylenes, total	MW-15	9/09/2013		70.0	2.0	ug/L
Xylenes, total	MW-15	3/30/2014		132.0	2.0	ug/L
Xylenes, total	MW-15	9/19/2014		89.8	2.0	ug/L
Xylenes, total	MW-15	4/20/2015		58.0	2.0	ug/L
Xylenes, total	MW-15	10/05/2015		11.8	2.0	ug/L
Xylenes, total	MW-15	4/05/2016		59.2	2.0	ug/L
Xylenes, total	MW-15	10/05/2016		19.2	2.0	ug/L
Xylenes, total	MW-15	4/04/2017		26.1	2.0	ug/L
Xylenes, total	MW-15	10/03/2017		6.3	2.0	ug/L
Xylenes, total	MW-15	4/10/2018		56.2	2.0	ug/L
Xylenes, total	MW-15	10/12/2018		3.5	2.0	ug/L
Xylenes, total	MW-15	4/16/2019		4.3	2.0	ug/L
Xylenes, total	MW-15	9/30/2019		3.1	2.0	ug/L
Xylenes, total	MW-15	4/07/2020		4.0	2.0	ug/L
Xylenes, total	MW-15	10/07/2020		10.3	2.0	ug/L
Xylenes, total	MW-15	4/22/2021		2.3	2.0	ug/L
Acetone	MW-16	10/03/2017		27.9	10.0	ug/L
Acetone	MW-20	10/03/2017		22.4	10.0	ug/L
Acetone	MW-22	10/03/2017		28.8	10.0	ug/L
1,1-dichloroethane	MW-6	9/09/2013		2.5	1.0	ug/L
Acetone	MW-6	10/03/2017		16.2	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-6	3/30/2014		36	8	ug/L
Bis(2-ethylhexyl) phthalate	MW-6	10/03/2017		10	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-6	4/08/2024		32	6	ug/L
Dichlorodifluoromethane	MW-6	3/30/2014		3.5	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

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Dichlorodifluoromethane	MW-6	9/19/2014		1.3	1.0	ug/L
Dichlorodifluoromethane	MW-6	4/20/2015		1.0	1.0	ug/L
Dichlorodifluoromethane	MW-6	10/05/2016		1.0	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 D

Assessment Statistics for Detected VOCs

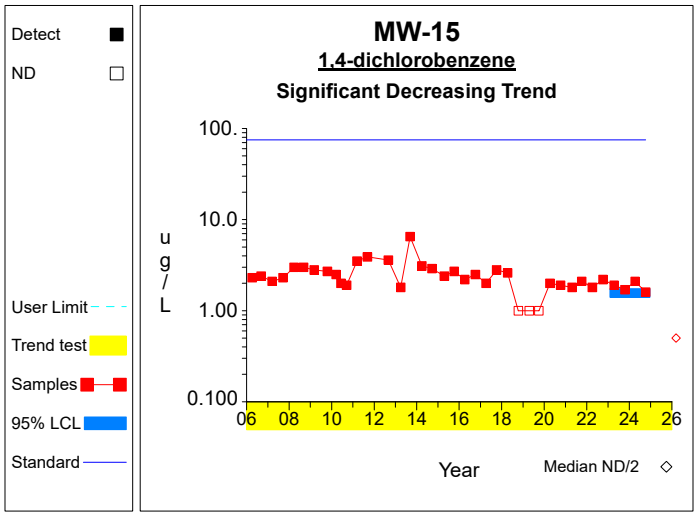
Table 1

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

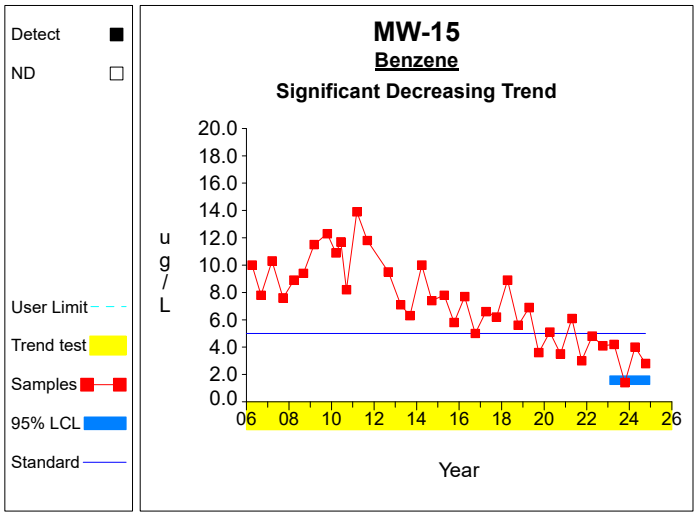
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
1,4-dichlorobenzene	ug/L	MW-15	4	1.825	0.222	1.176	1.564	2.086	75.000	dec
Benzene	ug/L	MW-15	4	3.100	1.291	1.176	1.581	4.619	5.000	dec
Chlorobenzene	ug/L	MW-15	4	5.375	1.100	1.176	4.082	6.668	100.000	
Chloroethane	ug/L	MW-15	4	4.250	0.342	1.176	3.848	4.652	2800.000	dec

* - Insufficient Data
** - Significant Exceedance
LCL = Lower Confidence Limit
UCL = Upper Confidence Limit

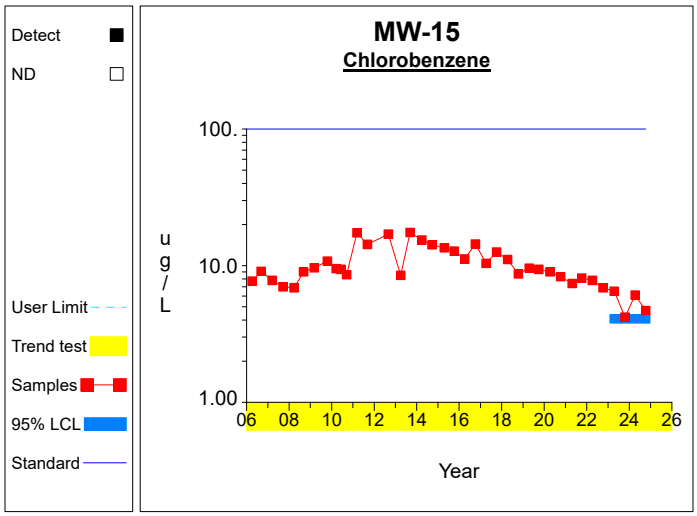
Confidence Limits (Assessment)



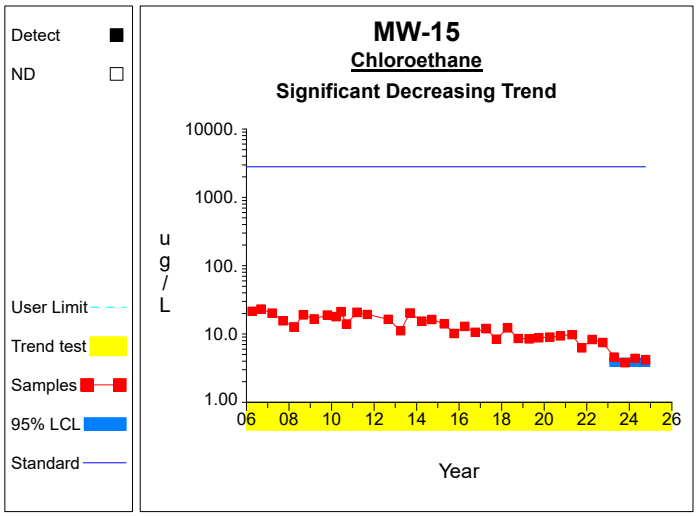
Graph 1



Graph 2



Graph 3



Graph 4

Worksheet 6 - Assessment Monitoring
1,4-dichlorobenzene (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **7.3** / **4** = **1.825**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**13.47** - **53.29**/**4**) / (**4**-1))^{½} = **0.222**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **1.825** - **2.353** * **0.222**/**4**^{½} = **1.564**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **1.825** + **2.353** * **0.222**/**4**^{½} = **2.086**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **38** * (**38**-1) / 2 = **703**	Number of sample pairs during trend detection period.
6	S = **-0.062**	Sen's estimator of trend.
7	var(S) = **6301.667**	Variance estimate for slope.
8	M(S) = (**N**' ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**703** ± **2.576** * **6301.667**^{½}) / 2 = [**249.255**, **453.745**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-0.127**, **-0.012**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
Benzene (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **12.4** / **4** = **3.1**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**43.44** - **153.76**/**4**) / (**4**-1))^{½} = **1.291**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **3.1** - **2.353** * **1.291**/**4**^{½} = **1.581**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **3.1** + **2.353** * **1.291**/**4**^{½} = **4.619**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **38** * (**38**-1) / 2 = **703**	Number of sample pairs during trend detection period.
6	S = **-0.438**	Sen's estimator of trend.
7	var(S) = **6324.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**703** ± **2.576** * **6324.0**^{½}) / 2 = [**249.074**, **453.926**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-0.584**, **-0.292**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Worksheet 6 - Assessment Monitoring
Chlorobenzene (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **21.5** / **4** = **5.375**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**119.19** - **462.25**/**4**) / (**4**-1))^{½} = **1.1**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **5.375** - **2.353** * **1.1**/**4**^{½} = **4.082**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **5.375** + **2.353** * **1.1**/**4**^{½} = **6.668**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **38** * (**38**-1) / 2 = **703**	Number of sample pairs during trend detection period.
6	S = **-0.217**	Sen's estimator of trend.
7	var(S) = **6323.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**703** ± **2.576** * **6323.0**^{½}) / 2 = [**249.082**, **453.918**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-0.702**, **0.021**]	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Chloroethane (ug/L) at MW-15

Step	Equation	Description
1	$\overline{X}$ = **sum[X]** / **N** = **17.0** / **4** = **4.25**	Compute the mean of the last 4 measurements.
2	S = ((**sum[X^2]** - **sum[X]**^{2}/**N**) / (**N**-1))^{½} = ((**72.6** - **289.0**/**4**) / (**4**-1))^{½} = **0.342**	Compute sd of the last 4 measurements.
3	LCL = $\overline{\mathbf{X}}$ - **tS**/**N**^{½} = **4.25** - **2.353** * **0.342**/**4**^{½} = **3.848**	Compute lower confidence limit for the mean of the last 4 measurements.
4	UCL = $\overline{\mathbf{X}}$ + **tS**/**N**^{½} = **4.25** + **2.353** * **0.342**/**4**^{½} = **4.652**	Compute upper confidence limit for the mean of the last 4 measurements.
5	N' = **N** * (**N**-1) / 2 = **38** * (**38**-1) / 2 = **703**	Number of sample pairs during trend detection period.
6	S = **-0.911**	Sen's estimator of trend.
7	var(S) = **6327.0**	Variance estimate for slope.
8	M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**^{½}) / 2 = (**703** ± **2.576** * **6327.0**^{½}) / 2 = [**249.049**, **453.951**]	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the Mth largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	CL(S) = [**-1.096**, **-0.732**]	Two-sided confidence interval for slope.
10	UCL(S) < 0	**Significant decreasing trend.**

Appendix C

Laboratory Reports for Reporting Period

With Chain of Custody

Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD0814

Project Description

Jones Co. Landfill - New Regs

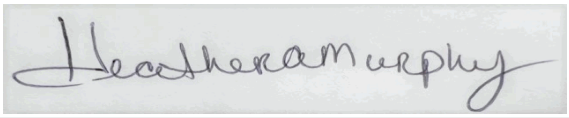
For:

Todd Whipple

HLW Engineering

PO Box 314

Story City, IA 50248



Heather Murphy

Customer Relationship Specialist

Friday, May 31, 2024

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®

Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD0814

HLW Engineering

Todd Whipple
PO Box 314
Story City, IA 50248

Project Name: Jones Co. Landfill - New Regs

Project / PO Number: N/A
Received: 04/10/2024
Reported: 05/31/2024

Sample Summary Report

Sample Name	Laboratory ID	Client Matrix	Sample Type	Sample Begin	Sample Taken	Lab Received
MW-12 (up)	1HD0814-01	Aqueous	GRAB		04/08/24 11:22	04/10/24 10:08
MW-6	1HD0814-02	Aqueous	GRAB		04/08/24 11:50	04/10/24 10:08
MW-11	1HD0814-03	Aqueous	GRAB		04/08/24 11:11	04/10/24 10:08
MW-15	1HD0814-04	Aqueous	GRAB		04/08/24 13:42	04/10/24 10:08
MW-16	1HD0814-05	Aqueous	GRAB		04/08/24 13:31	04/10/24 10:08
MW-20	1HD0814-06	Aqueous	GRAB		04/08/24 12:31	04/10/24 10:08
MW-22	1HD0814-07	Aqueous	GRAB		04/08/24 13:00	04/10/24 10:08
LPZ-6	1HD0814-08	Aqueous	GRAB		04/08/24 14:12	04/10/24 10:08
Duplicate	1HD0814-09	Aqueous	GRAB		04/08/24 00:00	04/10/24 10:08

Analytical Testing Parameters

Client Sample ID:	MW-12 (up)		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-01	**Collection Date:**	04/08/2024 11:22

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Chloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Acetone	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Chloroform	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Benzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Dibromomethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Toluene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Xylenes, total	<2.0	2.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Styrene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS

Client Sample ID:	MW-12 (up)		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-01	**Collection Date:**	04/08/2024 11:22

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bromoform	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1220	LJS
Surrogate: Dibromofluoromethane	121	Limit: 75-136	% Rec	1		04/15/24 0000	04/15/24 1220	LJS
Surrogate: Dibromofluoromethane	121	Limit: 80-126	% Rec	1		04/15/24 0000	04/15/24 1220	LJS
Surrogate: 1,2-Dichloroethane-d4	122	Limit: 63-138	% Rec	1		04/15/24 0000	04/15/24 1220	LJS
Surrogate: 1,2-Dichloroethane-d4	122	Limit: 61-142	% Rec	1		04/15/24 0000	04/15/24 1220	LJS
Surrogate: Toluene-d8	101	Limit: 82-121	% Rec	1		04/15/24 0000	04/15/24 1220	LJS
Surrogate: Toluene-d8	101	Limit: 87-116	% Rec	1		04/15/24 0000	04/15/24 1220	LJS
Surrogate: 4-Bromofluorobenzene	101	Limit: 80-116	% Rec	1		04/15/24 0000	04/15/24 1220	LJS
Surrogate: 4-Bromofluorobenzene	101	Limit: 85-111	% Rec	1		04/15/24 0000	04/15/24 1220	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Barium, total	**0.247**	0.0040	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Copper, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Lead, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Silver, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/12/24 1055	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/12/24 1055	RVV

Client Sample ID:	MW-6		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-02	**Collection Date:**	04/08/2024 11:50

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Dichlorodifluoromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Chloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Chloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Acrolein	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1246	LNH
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Acetone	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Methyl Iodide	<2.0	2.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Acetonitrile	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1246	LNH
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
2,2-Dichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
2-Butanone (MEK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Chloroform	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,1-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Benzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Dibromomethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Toluene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Ethyl Methacrylate	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,3-Dichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS

Client Sample ID:	MW-6		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-02	**Collection Date:**	04/08/2024 11:50

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Chlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Xylenes, total	<2.0	2.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Styrene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Bromoform	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,3-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1246	LJS
Allyl chloride	<1.0	1.0	ug/L	1		04/17/24 0000	04/17/24 1845	LJS
Chloroprene	<1.0	1.0	ug/L	1		04/17/24 0000	04/17/24 1845	LJS
Methacrylonitrile	<1.0	1.0	ug/L	1		04/17/24 0000	04/17/24 1845	LJS
Methyl Methacrylate	<1.0	1.0	ug/L	1		04/17/24 0000	04/17/24 1845	LJS
Propionitrile	<10.0	10.0	ug/L	1		04/17/24 0000	04/17/24 1845	LJS
Surrogate: Dibromofluoromethane	96.2	Limit: 80-126	% Rec	1		04/17/24 0000	04/17/24 1845	LJS
Surrogate: Dibromofluoromethane	117	Limit: 80-126	% Rec	1		04/15/24 0000	04/15/24 1246	LJS
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 63-138	% Rec	1		04/17/24 0000	04/17/24 1845	LJS
Surrogate: 1,2-Dichloroethane-d4	120	Limit: 63-138	% Rec	1		04/15/24 0000	04/15/24 1246	LNH
Surrogate: 1,2-Dichloroethane-d4	120	Limit: 63-138	% Rec	1		04/15/24 0000	04/15/24 1246	LJS
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		04/15/24 0000	04/15/24 1246	LNH
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		04/15/24 0000	04/15/24 1246	LJS
Surrogate: Toluene-d8	98.0	Limit: 87-116	% Rec	1		04/17/24 0000	04/17/24 1845	LJS
Surrogate: 4-Bromofluorobenzene	98.3	Limit: 85-111	% Rec	1		04/17/24 0000	04/17/24 1845	LJS
Surrogate: 4-Bromofluorobenzene	101	Limit: 85-111	% Rec	1		04/15/24 0000	04/15/24 1246	LNH
Surrogate: 4-Bromofluorobenzene	101	Limit: 85-111	% Rec	1		04/15/24 0000	04/15/24 1246	LJS

Determination of General Solvents	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8015C								
Isobutanol	<1.0	1.0	mg/L	1		04/15/24 0830	04/15/24 2006	PDS

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 8270C								
N-Nitrosodimethylamine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Methyl Methanesulfonate	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
N-Nitrosodiethylamine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
N-Nitrosomethylethylamine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Ethyl Methanesulfonate	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Phenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP

Client Sample ID:	MW-6		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-02	**Collection Date:**	04/08/2024 11:50

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bis(2-Chloroethyl) Ether	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2-Chlorophenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Benzyl Alcohol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2-Methylphenol (o-Cresol)	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Bis[2-Chloroisopropyl]ether	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
n-Nitroso-di-n-propylamine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
N-Nitrosopyrrolidine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Acetophenone	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
o-Toluidine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
(3 & 4)-Methylphenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Hexachloroethane	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Nitrobenzene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
N-Nitrosopiperidine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Isophorone	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2-Nitrophenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2,4-Dimethylphenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Bis (2-Chloroethoxy) Methane	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2,4-Dichlorophenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Naphthalene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
4-Chloroaniline	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2,6-Dichlorophenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Hexachloropropene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Hexachlorobutadiene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
N-Nitrosodi-n-butylamine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
1,4-Phenylenediamine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
4-Chloro-3-methylphenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2-Methylnaphthalene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Isosafrole	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Hexachlorocyclopentadiene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2,4,6-Trichlorophenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2,4,5-Trichlorophenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Safrole	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2-Chloronaphthalene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2-Nitroaniline	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
1,4-Naphthoquinone	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Dimethylphthalate	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
1,3-Dinitrobenzene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
1,2-Dinitrobenzene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2,6-Dinitrotoluene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Acenaphthylene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
3-Nitroaniline	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Acenaphthene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP

Client Sample ID:	MW-6		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-02	**Collection Date:**	04/08/2024 11:50

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
4-Nitrophenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Dibenzofuran	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2,4-Dinitrotoluene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2,3,4,6-Tetrachlorophenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Pentachlorobenzene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
1-Naphthylamine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2-Naphthylamine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Diethyl Phthalate	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Fluorene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
4-Chlorophenyl Phenyl Ether	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
4-Nitroaniline	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
5-Nitro-o-toluidine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
4,6-Dinitro-2-methylphenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
N-Nitrosodiphenylamine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Diphenylamine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Azobenzene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Diallate	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
1,3,5-Trinitrobenzene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Phenacetin	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
4-Bromophenyl Phenyl Ether	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
4-Aminobiphenyl	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Pentachlorophenol	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Pronamide	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Pentachloronitrobenzene (PCNB)	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Phenanthrene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Anthracene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Di-n-butyl Phthalate	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Methapyrilene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Fluoranthene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Isodrin	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Chlorobenzilate	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Pyrene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
p-(Dimethylamino)azobenzene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
3,3-Dimethylbenzidine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Butyl Benzyl Phthalate	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Benzo(a)anthracene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Chrysene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Bis(2-Ethylhexyl) Phthalate	**32**	6	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Kepone	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
3,3´-Dichlorobenzidine	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
2-Acetylaminofluorene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Di-n-octyl Phthalate	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP

Client Sample ID:	MW-6		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-02	**Collection Date:**	04/08/2024 11:50

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Benzo(b)Fluoranthene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Benzo(k)Fluoranthene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Benzo(a)Pyrene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
3-Methylcholanthrene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Dibenzo(a,h)anthracene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Benzo(g,h,i)perylene	<8	8	ug/L	1		04/15/24 1345	04/29/24 1728	EPP
Surrogate: 2-Fluorophenol	75.0	Limit: 24-136	% Rec	1		04/15/24 1345	04/29/24 1728	EPP
Surrogate: Phenol-d6	77.3	Limit: 15-140	% Rec	1		04/15/24 1345	04/29/24 1728	EPP
Surrogate: Nitrobenzene-d5	91.5	Limit: 29-130	% Rec	1		04/15/24 1345	04/29/24 1728	EPP
Surrogate: 2-Fluorobiphenyl	85.0	Limit: 23-113	% Rec	1		04/15/24 1345	04/29/24 1728	EPP
Surrogate: 2,4,6-Tribromophenol	79.8	Limit: 15-139	% Rec	1		04/15/24 1345	04/29/24 1728	EPP
Surrogate: Terphenyl-dl4	99.8	Limit: 27-141	% Rec	1		04/15/24 1345	04/29/24 1728	EPP

Determination of Organophosphorus Insecticides	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8141								
O,O,O-Triethyl phosphorothioate	<0.4	0.4	ug/L	1		04/15/24 1644	04/18/24 2016	EPP
Thionazin	<0.4	0.4	ug/L	1		04/15/24 1644	04/18/24 2016	EPP
Phorate	<0.4	0.4	ug/L	1		04/15/24 1644	04/18/24 2016	EPP
Dimethoate	<0.4	0.4	ug/L	1		04/15/24 1644	04/18/24 2016	EPP
Disulfoton	<0.4	0.4	ug/L	1		04/15/24 1644	04/18/24 2016	EPP
Methyl Parathion	<0.4	0.4	ug/L	1		04/15/24 1644	04/18/24 2016	EPP
Parathion	<0.4	0.4	ug/L	1		04/15/24 1644	04/18/24 2016	EPP
Famphur	<0.4	0.4	ug/L	1		04/15/24 1644	04/18/24 2016	EPP
Surrogate: 2-Nitro-m-xylene	82.7	Limit: 38-122	% Rec	1		04/15/24 1644	04/18/24 2016	EPP

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8151A								
2,4-D	<2.0	2.0	ug/L	1		04/15/24 1731	04/30/24 1644	MSV
2,4,5-TP (Silvex)	<0.5	0.5	ug/L	1		04/15/24 1731	04/30/24 1644	MSV
2,4,5-T	<0.5	0.5	ug/L	1		04/15/24 1731	04/30/24 1644	MSV
Dinoseb	<0.5	0.5	ug/L	1		04/15/24 1731	04/30/24 1644	MSV
Surrogate: 2,5-Dichlorobenzoic Acid	66.3	Limit: 31-116	% Rec	1		04/15/24 1731	04/30/24 1644	MSV

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8081								
Alpha-BHC	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Gamma-BHC [Lindane]	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Beta-BHC	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Heptachlor	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP

Client Sample ID:	MW-6		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-02	**Collection Date:**	04/08/2024 11:50

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Delta-BHC	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Aldrin	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Heptachlor Epoxide	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Endosulfan I	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
4,4`-DDE	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Dieldrin	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Endrin	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
4,4`-DDD	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Endosulfan II	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
4,4`-DDT	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Endrin Aldehyde	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Endosulfan Sulfate	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Methoxychlor	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Chlordane	<0.10	0.10	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Toxaphene	<0.20	0.20	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Hexachlorobenzene	<0.05	0.05	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Surrogate: Tetrachloro-m-xylene	96.7	Limit: 10-121	% Rec	1		04/15/24 1643	04/17/24 1914	EPP

Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8082								
Arochlor 1016	<0.20	0.20	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Arochlor 1221	<0.20	0.20	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Arochlor 1232	<0.20	0.20	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Arochlor 1242	<0.20	0.20	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Arochlor 1248	<0.20	0.20	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Arochlor 1254	<0.20	0.20	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Arochlor 1260	<0.20	0.20	ug/L	1		04/15/24 1643	04/17/24 1914	EPP
Surrogate: Tetrachloro-m-xylene	106	Limit: 38-121	% Rec	1		04/15/24 1643	04/17/24 1914	EPP
Surrogate: Decachlorobiphenyl	91.8	Limit: 25-119	% Rec	1		04/15/24 1643	04/17/24 1914	EPP

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 376.2								
Sulfide, total	<0.30	0.30	mg/L	1		04/11/24 0922	04/15/24 1717	CHP
EPA 9010B								
Cyanide, total	<0.005	0.005	mg/L	1		04/18/24 1716	04/21/24 1210	CHP

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Barium, total	**0.171**	0.0040	mg/L	4		04/11/24 0824	04/11/24 2300	RVV

Client Sample ID:	MW-6		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-02	**Collection Date:**	04/08/2024 11:50

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Beryllium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Copper, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Lead, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Silver, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Tin, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/11/24 2300	RVV
EPA 7470A								
Mercury, total	<0.00050	0.00050	mg/L	1		04/16/24 1338	04/17/24 1526	JAR

Client Sample ID:	MW-11		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-03	**Collection Date:**	04/08/2024 11:11

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Chloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Acetone	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Chloroform	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Benzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Dibromomethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Toluene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Xylenes, total	<2.0	2.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Styrene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Bromoform	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS

Client Sample ID:	MW-11		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-03	**Collection Date:**	04/08/2024 11:11

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1313	LJS
Surrogate: Dibromofluoromethane	117	Limit: 75-136	% Rec	1		04/15/24 0000	04/15/24 1313	LJS
Surrogate: Dibromofluoromethane	117	Limit: 80-126	% Rec	1		04/15/24 0000	04/15/24 1313	LJS
Surrogate: 1,2-Dichloroethane-d4	121	Limit: 63-138	% Rec	1		04/15/24 0000	04/15/24 1313	LJS
Surrogate: 1,2-Dichloroethane-d4	121	Limit: 61-142	% Rec	1		04/15/24 0000	04/15/24 1313	LJS
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		04/15/24 0000	04/15/24 1313	LJS
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		04/15/24 0000	04/15/24 1313	LJS
Surrogate: 4-Bromofluorobenzene	102	Limit: 85-111	% Rec	1		04/15/24 0000	04/15/24 1313	LJS
Surrogate: 4-Bromofluorobenzene	102	Limit: 80-116	% Rec	1		04/15/24 0000	04/15/24 1313	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Barium, total	**0.286**	0.0040	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Copper, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Lead, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Silver, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/11/24 2306	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/11/24 2306	RVV

Client Sample ID:	MW-15		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-04	**Collection Date:**	04/08/2024 13:42

Determination of Volatile Organic Compounds		Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B									
Chloromethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Vinyl Chloride		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Bromomethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Chloroethane	**4.4**		1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Trichlorofluoromethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,1-Dichloroethylene	**1.0**		1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Acetone		<10.0	10.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Methyl Iodide		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Carbon Disulfide		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Methylene Chloride		<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Acrylonitrile		<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
trans-1,2-Dichloroethylene		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,1-Dichloroethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Vinyl Acetate		<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
cis-1,2-Dichloroethylene		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
2-Butanone (MEK)		<10.0	10.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Bromochloromethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Chloroform		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,1,1-Trichloroethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Carbon Tetrachloride		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Benzene	**4.0**		1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,2-Dichloroethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Trichloroethylene		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,2-Dichloropropane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Dibromomethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Bromodichloromethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
cis-1,3-Dichloropropene		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
4-Methyl-2-pentanone (MIBK)		<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Toluene		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
trans-1,3-Dichloropropene		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,1,2-Trichloroethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Tetrachloroethylene		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
2-Hexanone (MBK)		<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Dibromochloromethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,2-Dibromoethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Chlorobenzene	**6.1**		1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,1,1,2-Tetrachloroethane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Ethylbenzene		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Xylenes, total		<2.0	2.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Styrene		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Bromoform		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,2,3-Trichloropropane		<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS

Client Sample ID:	MW-15		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-04	**Collection Date:**	04/08/2024 13:42

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,4-Dichlorobenzene	**2.1**	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1455	LJS
Surrogate: Dibromofluoromethane	73.7	Limit: 75-136	% Rec	1	**S-GC**	04/12/24 0000	04/12/24 1455	LJS
Surrogate: Dibromofluoromethane	73.7	Limit: 80-126	% Rec	1	**S-GC**	04/12/24 0000	04/12/24 1455	LJS
Surrogate: 1,2-Dichloroethane-d4	70.6	Limit: 63-138	% Rec	1		04/12/24 0000	04/12/24 1455	LJS
Surrogate: 1,2-Dichloroethane-d4	70.6	Limit: 61-142	% Rec	1		04/12/24 0000	04/12/24 1455	LJS
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec	1		04/12/24 0000	04/12/24 1455	LJS
Surrogate: Toluene-d8	100	Limit: 87-116	% Rec	1		04/12/24 0000	04/12/24 1455	LJS
Surrogate: 4-Bromofluorobenzene	85.8	Limit: 85-111	% Rec	1		04/12/24 0000	04/12/24 1455	LJS
Surrogate: 4-Bromofluorobenzene	85.8	Limit: 80-116	% Rec	1		04/12/24 0000	04/12/24 1455	LJS

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2320B								
Alkalinity, as CaCO3	**397**	50	mg/L	1		04/12/24 0823	04/12/24 1010	BSS
SM 4500 H+ B								
pH	**6.6**	0.5	pH	1	**I-03**	04/12/24 1334	04/12/24 1342	BSS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Arsenic, total	**0.151**	0.0040	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Barium, total	**0.800**	0.0040	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Cobalt, total	**0.0141**	0.0004	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Copper, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Lead, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Nickel, total	**0.0583**	0.0040	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Silver, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/11/24 2313	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/11/24 2313	RVV

Client Sample ID:	MW-16		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-05	**Collection Date:**	04/08/2024 13:31

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Chloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Acetone	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Chloroform	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Benzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Dibromomethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Toluene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Xylenes, total	<2.0	2.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Styrene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Bromoform	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS

Client Sample ID:	MW-16		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-05	**Collection Date:**	04/08/2024 13:31

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1340	LJS
Surrogate: Dibromofluoromethane	118	Limit: 80-126	% Rec	1		04/15/24 0000	04/15/24 1340	LJS
Surrogate: Dibromofluoromethane	118	Limit: 75-136	% Rec	1		04/15/24 0000	04/15/24 1340	LJS
Surrogate: 1,2-Dichloroethane-d4	120	Limit: 63-138	% Rec	1		04/15/24 0000	04/15/24 1340	LJS
Surrogate: 1,2-Dichloroethane-d4	120	Limit: 61-142	% Rec	1		04/15/24 0000	04/15/24 1340	LJS
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		04/15/24 0000	04/15/24 1340	LJS
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		04/15/24 0000	04/15/24 1340	LJS
Surrogate: 4-Bromofluorobenzene	102	Limit: 85-111	% Rec	1		04/15/24 0000	04/15/24 1340	LJS
Surrogate: 4-Bromofluorobenzene	102	Limit: 80-116	% Rec	1		04/15/24 0000	04/15/24 1340	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Barium, total	**0.0843**	0.0040	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Copper, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Lead, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Silver, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/11/24 2319	RVV
Zinc, total	**0.0324**	0.0200	mg/L	4		04/11/24 0824	04/11/24 2319	RVV

Client Sample ID:	MW-20		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-06	**Collection Date:**	04/08/2024 12:31

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Chloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Acetone	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Chloroform	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Benzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Dibromomethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Toluene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Xylenes, total	<2.0	2.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Styrene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Bromoform	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS

Client Sample ID:	MW-20		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-06	**Collection Date:**	04/08/2024 12:31

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1406	LJS
Surrogate: Dibromofluoromethane	116	Limit: 75-136	% Rec	1		04/15/24 0000	04/15/24 1406	LJS
Surrogate: Dibromofluoromethane	116	Limit: 80-126	% Rec	1		04/15/24 0000	04/15/24 1406	LJS
Surrogate: 1,2-Dichloroethane-d4	119	Limit: 63-138	% Rec	1		04/15/24 0000	04/15/24 1406	LJS
Surrogate: 1,2-Dichloroethane-d4	119	Limit: 61-142	% Rec	1		04/15/24 0000	04/15/24 1406	LJS
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec	1		04/15/24 0000	04/15/24 1406	LJS
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		04/15/24 0000	04/15/24 1406	LJS
Surrogate: 4-Bromofluorobenzene	102	Limit: 85-111	% Rec	1		04/15/24 0000	04/15/24 1406	LJS
Surrogate: 4-Bromofluorobenzene	102	Limit: 80-116	% Rec	1		04/15/24 0000	04/15/24 1406	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Barium, total	**0.144**	0.0040	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Copper, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Lead, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Silver, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/11/24 2325	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/11/24 2325	RVV

Client Sample ID:	MW-22		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-07	**Collection Date:**	04/08/2024 13:00

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Chloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Acetone	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Chloroform	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Benzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Dibromomethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Toluene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Xylenes, total	<2.0	2.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Styrene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Bromoform	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS

Client Sample ID:	MW-22		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-07	**Collection Date:**	04/08/2024 13:00

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		04/15/24 0000	04/15/24 1433	LJS
Surrogate: Dibromofluoromethane	115	Limit: 80-126	% Rec	1		04/15/24 0000	04/15/24 1433	LJS
Surrogate: Dibromofluoromethane	115	Limit: 75-136	% Rec	1		04/15/24 0000	04/15/24 1433	LJS
Surrogate: 1,2-Dichloroethane-d4	118	Limit: 61-142	% Rec	1		04/15/24 0000	04/15/24 1433	LJS
Surrogate: 1,2-Dichloroethane-d4	118	Limit: 63-138	% Rec	1		04/15/24 0000	04/15/24 1433	LJS
Surrogate: Toluene-d8	103	Limit: 87-116	% Rec	1		04/15/24 0000	04/15/24 1433	LJS
Surrogate: Toluene-d8	103	Limit: 82-121	% Rec	1		04/15/24 0000	04/15/24 1433	LJS
Surrogate: 4-Bromofluorobenzene	102	Limit: 80-116	% Rec	1		04/15/24 0000	04/15/24 1433	LJS
Surrogate: 4-Bromofluorobenzene	102	Limit: 85-111	% Rec	1		04/15/24 0000	04/15/24 1433	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Barium, total	**0.134**	0.0040	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Copper, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Lead, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Silver, total	<0.0040	0.0040	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/11/24 2331	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		04/11/24 0824	04/11/24 2331	RVV

Client Sample ID:	LPZ-6		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-08	**Collection Date:**	04/08/2024 14:12

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Chloroethane	**1.3**	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Acetone	<10.0	10.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Chloroform	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Benzene	**17.7**	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Dibromomethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Toluene	**1.0**	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
2-Hexanone (MBK)	**50.8**	5.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Chlorobenzene	**1.7**	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Ethylbenzene	**7.6**	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Xylenes, total	**95.0**	2.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Styrene	**1.5**	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Bromoform	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS

Client Sample ID:	LPZ-6		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-08	**Collection Date:**	04/08/2024 14:12

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,4-Dichlorobenzene	**9.2**	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		04/12/24 0000	04/12/24 1640	LJS
Surrogate: Dibromofluoromethane	66.5	Limit: 80-126	% Rec	1	**S-GC**	04/12/24 0000	04/12/24 1640	LJS
Surrogate: Dibromofluoromethane	66.5	Limit: 75-136	% Rec	1	**S-GC**	04/12/24 0000	04/12/24 1640	LJS
Surrogate: 1,2-Dichloroethane-d4	63.9	Limit: 63-138	% Rec	1		04/12/24 0000	04/12/24 1640	LJS
Surrogate: 1,2-Dichloroethane-d4	63.9	Limit: 61-142	% Rec	1		04/12/24 0000	04/12/24 1640	LJS
Surrogate: Toluene-d8	98.6	Limit: 87-116	% Rec	1		04/12/24 0000	04/12/24 1640	LJS
Surrogate: Toluene-d8	98.6	Limit: 82-121	% Rec	1		04/12/24 0000	04/12/24 1640	LJS
Surrogate: 4-Bromofluorobenzene	90.1	Limit: 85-111	% Rec	1		04/12/24 0000	04/12/24 1640	LJS
Surrogate: 4-Bromofluorobenzene	90.1	Limit: 80-116	% Rec	1		04/12/24 0000	04/12/24 1640	LJS

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2320B								
Alkalinity, as CaCO3	**562**	50	mg/L	1		04/12/24 0823	04/12/24 1010	BSS
EPA 410.4								
COD, total	**156**	54	mg/L	1		04/22/24 0839	04/22/24 1513	CHP
SM 4500 H+ B								
pH	**6.5**	0.5	pH	1	**I-03**	04/12/24 1334	04/12/24 1342	BSS
SM 5210 B								
BOD (5 day)	**22**	6	mg/L	3	**I-02**	04/11/24 0908	04/11/24 1046	MND
TIMBERLINE								
Nitrogen, Ammonia	**13.3**	0.10	mg/L	1		04/11/24 0716	04/15/24 0905	LJS
USGS I-1750-85								
Total Dissolved Solids (TDS)	**908**	5	mg/L	1		04/15/24 0757	04/15/24 0920	MEAH
USGS I-3765-85								
Total Suspended Solids (TSS)	**104**	1	mg/L	1		04/11/24 1656	04/12/24 1435	MEAH

Determination of Inorganic Anions	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 9056								
Chloride	**169**	5.0	mg/L	5		04/22/24 0000	04/22/24 2111	MID
Sulfate	**20.3**	5.0	mg/L	5		04/22/24 0000	04/22/24 2111	MID

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Arsenic, total	**0.0207**	0.0040	mg/L	4		04/11/24 0824	04/11/24 2337	RVV
Cobalt, total	**0.0068**	0.0004	mg/L	4		04/11/24 0824	04/11/24 2337	RVV

Client Sample ID:	Duplicate		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HD0814-09	**Collection Date:**	04/08/2024

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Barium, total	**0.287**	0.0040	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Copper, total	<0.0040	0.0040	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Lead, total	<0.0040	0.0040	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Silver, total	<0.0040	0.0040	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		04/12/24 1625	04/15/24 2137	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		04/12/24 1625	04/15/24 2137	RVV

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1HD0661	1HD0661-BLK1	
		1HD0661-BS1	
		1HD0661-MS1	1HD0814-01
		1HD0661-PS1	1HD0814-01
		1HD0814-02	MW-6
		1HD0814-03	MW-11
		1HD0814-04	MW-15
		1HD0814-05	MW-16
		1HD0814-06	MW-20
		1HD0814-07	MW-22
		1HD0814-08	LPZ-6
		1HD0814-01	MW-12 (up)
		1HD0661-MSD1	1HD0814-01

Method	Batch	Laboratory ID	Client / Source ID
TIMBERLINE	1HD0682	1HD0682-BLK1	
		1HD0682-BS1	
		1HD0682-MS1	1HD0759-03
		1HD0682-MSD1	1HD0759-03
		1HD0814-08	LPZ-6

Method	Batch	Laboratory ID	Client / Source ID
SM 5210 B	1HD0707	1HD0707-BLK1	
		1HD0707-SRM1	
		1HD0814-08	LPZ-6
		1HD0707-DUP1	1HD0791-03

Method	Batch	Laboratory ID	Client / Source ID
EPA 376.2	1HD0714	1HD0714-MSD1	1HD0788-02
		1HD0814-02	MW-6
		1HD0714-MS1	1HD0788-02
		1HD0714-BS1	
		1HD0714-BLK1	

Method	Batch	Laboratory ID	Client / Source ID
USGS I-3765-85	1HD0769	1HD0814-08	LPZ-6
		1HD0769-DUP1	1HD0663-01
		1HD0769-BS1	
		1HD0769-BLK1	

Method	Batch	Laboratory ID	Client / Source ID

2320B	1HD0774	1HD0774-MS1	1HD0791-04
		1HD0814-04	MW-15
		1HD0774-BLK1	
		1HD0774-MSD1	1HD0791-04
		1HD0814-08	LPZ-6
		1HD0774-BS1	

Method	Batch	Laboratory ID	Client / Source ID
SM 4500 H+ B	1HD0812	1HD0814-04	MW-15
		1HD0814-08	LPZ-6
		1HD0812-SRM2	
		1HD0812-DUP1	1HD0885-02
		1HD0812-SRM1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1HD0843	1HD0843-BLK1	
		1HD0843-BS1	
		1HD0814-09	Duplicate
		1HD0843-MS1	1HD0949-01
		1HD0843-MSD1	1HD0949-01
		1HD0843-PS1	1HD0949-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1HD0845	1HD0845-BS1	
		1HD0845-BSD1	
		1HD0845-BLK1	
		1HD0814-04	MW-15
		1HD0814-08	LPZ-6
		1HD0845-MS1	1HD0814-03
		1HD0845-MSD1	1HD0814-03

Method	Batch	Laboratory ID	Client / Source ID
USGS I-1750-85	1HD0855	1HD0814-08	LPZ-6
		1HD0855-BS1	
		1HD0855-DUP1	1HD0814-08
		1HD0855-BLK1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8015C	1HD0875	1HD0875-BS1	
		1HD0875-BLK1	
		1HD0814-02	MW-6
		1HD0875-MS1	1HD0193-01
		1HD0875-MSD1	1HD0193-01

Method	Batch	Laboratory ID	Client / Source ID

EPA 8270C	1HD0906	1HD0906-BLK1	
		1HD0906-BS1	
		1HD0906-BSD1	
		1HD0814-02	MW-6

Method	Batch	Laboratory ID	Client / Source ID
EPA 8081	1HD0934	1HD0934-BLK1	
		1HD0934-BS1	
		1HD0934-BSD1	
		1HD0814-02	MW-6

Method	Batch	Laboratory ID	Client / Source ID
EPA 8082	1HD0935	1HD0935-BLK1	
		1HD0935-BS1	
		1HD0935-BSD1	
		1HD0814-02	MW-6

Method	Batch	Laboratory ID	Client / Source ID
EPA 8141	1HD0937	1HD0937-BLK1	
		1HD0814-02	MW-6
		1HD0937-BS1	
		1HD0937-BSD1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8151A	1HD0942	1HD0942-BLK1	
		1HD0942-BS1	
		1HD0942-BSD1	
		1HD0814-02	MW-6

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1HD0944	1HD0944-BS1	
		1HD0944-BSD1	
		1HD0944-BLK1	
		1HD0814-01	MW-12 (up)
		1HD0814-02	MW-6
		1HD0814-03	MW-11
		1HD0814-05	MW-16
		1HD0814-06	MW-20
		1HD0814-07	MW-22

Method	Batch	Laboratory ID	Client / Source ID
EPA 7470A	1HD0989	1HD0989-BLK1	
		1HD0989-BS1	
		1HD0989-MS1	1HD0701-06
		1HD0989-MSD1	1HD0701-06

EPA 7470A	1HD0989	1HD0814-02	MW-6

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1HD1128	1HD1128-BS1	
		1HD1128-BSD1	
		1HD1128-BLK1	
		1HD0814-02	MW-6
		1HD1128-MS1	1HD0953-07
		1HD1128-MSD1	1HD0953-07

Method	Batch	Laboratory ID	Client / Source ID
EPA 9010B	1HD1205	1HD0814-02	MW-6
		1HD1205-MS1	1HD0814-02
		1HD1205-BLK1	
		1HD1205-MSD1	1HD0814-02
		1HD1205-BS1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 410.4	1HD1277	1HD1277-BLK1	
		1HD1277-BS1	
		1HD0814-08	LPZ-6
		1HD1277-MS1	3HD0063-04
		1HD1277-MSD1	3HD0063-04

Method	Batch	Laboratory ID	Client / Source ID
EPA 9056	1HD1365	1HD1365-BLK1	
		1HD1365-MRL1	
		1HD1365-BS1	
		1HD1365-BSD1	
		1HD1365-MS1	1HD1092-01
		1HD1365-MSD1	1HD1092-01
		1HD1365-BLK2	
		1HD0814-08	LPZ-6

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 1HD0845 - EPA 5030B - EPA 8260B										
Blank (1HD0845-BLK1)			Prepared: 04/12/24 00:00 Analyzed: 04/12/24 11:01							
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							

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0845 - EPA 5030B - EPA 8260B										
Blank (1HD0845-BLK1)				Prepared: 04/12/24 00:00 Analyzed: 04/12/24 11:01						
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							
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							

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0845 - EPA 5030B - EPA 8260B										
Blank (1HD0845-BLK1)			Prepared: 04/12/24 00:00 Analyzed: 04/12/24 11:01							
Surrogate: Dibromofluoromethane	*35.7*		ug/L	*50.2*		*71.2*	*80-126*			*S-GC*
Surrogate: Dibromofluoromethane	*35.7*		ug/L	*50.2*		*71.2*	*75-136*			*S-GC*
Surrogate: 1,2-Dichloroethane-d4	*33.7*		ug/L	*50.1*		*67.2*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*33.7*		ug/L	*50.1*		*67.2*	*61-142*			
Surrogate: Toluene-d8	*48.9*		ug/L	*50.4*		*97.1*	*87-116*			
Surrogate: Toluene-d8	*48.9*		ug/L	*50.4*		*97.1*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*43.6*		ug/L	*50.1*		*87.0*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*43.6*		ug/L	*50.1*		*87.0*	*80-116*			
LCS (1HD0845-BS1)			Prepared: 04/12/24 00:00 Analyzed: 04/12/24 09:42							
Chloromethane	28.73	1.0	ug/L	30.6		93.8	63-155			
Vinyl Chloride	25.90	1.0	ug/L	30.2		85.7	70-154			
Bromomethane	26.53	1.0	ug/L	28.8		92.1	52-176			
Chloroethane	28.88	1.0	ug/L	31.6		91.3	72-148			
Trichlorofluoromethane	25.16	1.0	ug/L	32.6		77.2	70-152			
1,1-Dichloroethylene	46.16	1.0	ug/L	50.0		92.3	70-148			
Acetone	84.10	10.0	ug/L	102		82.5	43-172			
Methyl Iodide	97.64	1.0	ug/L	99.7		97.9	69-170			
Carbon Disulfide	85.71	1.0	ug/L	101		84.9	72-162			
Methylene Chloride	43.05	5.0	ug/L	50.0		86.1	68-142			
Acrylonitrile	70.21	5.0	ug/L	100		70.0	67-144			
trans-1,2-Dichloroethylene	45.70	1.0	ug/L	50.0		91.4	66-148			
1,1-Dichloroethane	44.18	1.0	ug/L	50.0		88.4	66-143			
Vinyl Acetate	103.2	5.0	ug/L	102		101	43-153			
cis-1,2-Dichloroethylene	44.27	1.0	ug/L	49.5		89.5	71-149			
2-Butanone (MEK)	80.20	10.0	ug/L	103		77.6	52-159			
Bromochloromethane	44.15	1.0	ug/L	50.0		88.3	69-143			
Chloroform	44.05	1.0	ug/L	50.0		88.1	69-144			
1,1,1-Trichloroethane	41.29	1.0	ug/L	50.0		82.6	62-129			
Carbon Tetrachloride	44.49	1.0	ug/L	50.0		89.0	63-141			
Benzene	49.71	1.0	ug/L	50.0		99.4	71-134			
1,2-Dichloroethane	44.83	1.0	ug/L	50.0		89.7	72-132			
Trichloroethylene	47.69	1.0	ug/L	50.0		95.4	71-135			
1,2-Dichloropropane	46.72	1.0	ug/L	50.0		93.4	69-136			
Dibromomethane	47.28	1.0	ug/L	50.0		94.6	73-147			
Bromodichloromethane	44.20	1.0	ug/L	50.0		88.4	68-129			
cis-1,3-Dichloropropene	44.15	1.0	ug/L	50.3		87.7	65-134			
4-Methyl-2-pentanone (MIBK)	84.48	5.0	ug/L	101		83.3	58-147			
Toluene	49.84	1.0	ug/L	50.0		99.7	72-133			
trans-1,3-Dichloropropene	42.55	1.0	ug/L	50.4		84.4	67-130			
1,1,2-Trichloroethane	45.09	1.0	ug/L	50.0		90.2	69-135			
Tetrachloroethylene	55.01	1.0	ug/L	50.0		110	69-130			
2-Hexanone (MBK)	88.98	5.0	ug/L	103		86.1	55-144			
Dibromochloromethane	46.40	1.0	ug/L	49.5		93.7	73-127			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0845 - EPA 5030B - EPA 8260B										
LCS (1HD0845-BS1)				Prepared: 04/12/24 00:00 Analyzed: 04/12/24 09:42						
1,2-Dibromoethane	45.08	1.0	ug/L	50.0		90.2	67-132			
Chlorobenzene	51.92	1.0	ug/L	50.0		104	72-123			
1,1,1,2-Tetrachloroethane	50.50	1.0	ug/L	50.0		101	73-127			
Ethylbenzene	52.83	1.0	ug/L	50.0		106	71-127			
Xylenes, total	162.3	2.0	ug/L	150		108	74-127			
Styrene	50.66	1.0	ug/L	50.0		101	66-126			
Bromoform	50.96	1.0	ug/L	50.0		102	68-130			
1,2,3-Trichloropropane	47.17	1.0	ug/L	50.0		94.3	63-136			
trans-1,4-Dichloro-2-butene	83.16	5.0	ug/L	104		80.0	54-134			
1,1,2,2-Tetrachloroethane	45.04	1.0	ug/L	49.8		90.4	61-131			
1,4-Dichlorobenzene	54.36	1.0	ug/L	50.0		109	70-129			
1,2-Dichlorobenzene	53.65	1.0	ug/L	50.0		107	69-126			
1,2-Dibromo-3-chloropropane	44.11	5.0	ug/L	50.0		88.2	50-143			
Surrogate: Dibromofluoromethane	*45.8*		ug/L	*50.2*		*91.2*	*80-126*			
Surrogate: Dibromofluoromethane	*45.8*		ug/L	*50.2*		*91.2*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*46.6*		ug/L	*50.1*		*93.1*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*46.6*		ug/L	*50.1*		*93.1*	*61-142*			
Surrogate: Toluene-d8	*48.5*		ug/L	*50.4*		*96.2*	*87-116*			
Surrogate: Toluene-d8	*48.5*		ug/L	*50.4*		*96.2*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*49.8*		ug/L	*50.1*		*99.3*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*49.8*		ug/L	*50.1*		*99.3*	*80-116*			
LCS Dup (1HD0845-BSD1)				Prepared: 04/12/24 00:00 Analyzed: 04/12/24 10:08						
Chloromethane	27.13	1.0	ug/L	30.6		88.5	63-155	5.73	24	
Vinyl Chloride	24.08	1.0	ug/L	30.2		79.7	70-154	7.28	25	
Bromomethane	25.75	1.0	ug/L	28.8		89.4	52-176	2.98	27	
Chloroethane	27.27	1.0	ug/L	31.6		86.2	72-148	5.73	25	
Trichlorofluoromethane	23.59	1.0	ug/L	32.6		72.3	70-152	6.44	26	
1,1-Dichloroethylene	43.24	1.0	ug/L	50.0		86.5	70-148	6.53	24	
Acetone	79.10	10.0	ug/L	102		77.5	43-172	6.13	30	
Methyl Iodide	90.02	1.0	ug/L	99.7		90.3	69-170	8.12	30	
Carbon Disulfide	79.37	1.0	ug/L	101		78.6	72-162	7.68	24	
Methylene Chloride	40.77	5.0	ug/L	50.0		81.5	68-142	5.44	21	
Acrylonitrile	67.38	5.0	ug/L	100		67.1	67-144	4.11	24	
trans-1,2-Dichloroethylene	42.56	1.0	ug/L	50.0		85.1	66-148	7.12	27	
1,1-Dichloroethane	41.62	1.0	ug/L	50.0		83.2	66-143	5.97	24	
Vinyl Acetate	99.28	5.0	ug/L	102		97.4	43-153	3.88	30	
cis-1,2-Dichloroethylene	41.58	1.0	ug/L	49.5		84.0	71-149	6.27	26	
2-Butanone (MEK)	79.30	10.0	ug/L	103		76.8	52-159	1.13	27	
Bromochloromethane	41.65	1.0	ug/L	50.0		83.3	69-143	5.83	23	
Chloroform	41.45	1.0	ug/L	50.0		82.9	69-144	6.08	23	
1,1,1-Trichloroethane	38.55	1.0	ug/L	50.0		77.1	62-129	6.86	24	
Carbon Tetrachloride	41.60	1.0	ug/L	50.0		83.2	63-141	6.71	25	
Benzene	46.08	1.0	ug/L	50.0		92.2	71-134	7.58	24	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0845 - EPA 5030B - EPA 8260B										
LCS Dup (1HD0845-BSD1)				Prepared: 04/12/24 00:00 Analyzed: 04/12/24 10:08						
1,2-Dichloroethane	42.10	1.0	ug/L	50.0		84.2	72-132	6.28	24	
Trichloroethylene	43.93	1.0	ug/L	50.0		87.9	71-135	8.21	24	
1,2-Dichloropropane	43.38	1.0	ug/L	50.0		86.8	69-136	7.41	24	
Dibromomethane	44.04	1.0	ug/L	50.0		88.1	73-147	7.10	25	
Bromodichloromethane	41.25	1.0	ug/L	50.0		82.5	68-129	6.90	22	
cis-1,3-Dichloropropene	41.24	1.0	ug/L	50.3		81.9	65-134	6.82	23	
4-Methyl-2-pentanone (MIBK)	80.90	5.0	ug/L	101		79.8	58-147	4.33	27	
Toluene	46.44	1.0	ug/L	50.0		92.9	72-133	7.06	24	
trans-1,3-Dichloropropene	40.21	1.0	ug/L	50.4		79.7	67-130	5.65	24	
1,1,2-Trichloroethane	42.16	1.0	ug/L	50.0		84.3	69-135	6.72	23	
Tetrachloroethylene	51.43	1.0	ug/L	50.0		103	69-130	6.73	25	
2-Hexanone (MBK)	87.23	5.0	ug/L	103		84.4	55-144	1.99	25	
Dibromochloromethane	43.10	1.0	ug/L	49.5		87.1	73-127	7.37	22	
1,2-Dibromoethane	42.47	1.0	ug/L	50.0		84.9	67-132	5.96	24	
Chlorobenzene	48.34	1.0	ug/L	50.0		96.7	72-123	7.14	23	
1,1,1,2-Tetrachloroethane	47.38	1.0	ug/L	50.0		94.8	73-127	6.38	24	
Ethylbenzene	49.22	1.0	ug/L	50.0		98.4	71-127	7.07	26	
Xylenes, total	151.6	2.0	ug/L	150		101	74-127	6.80	25	
Styrene	47.47	1.0	ug/L	50.0		94.9	66-126	6.50	23	
Bromoform	47.50	1.0	ug/L	50.0		95.0	68-130	7.03	23	
1,2,3-Trichloropropane	44.54	1.0	ug/L	50.0		89.1	63-136	5.74	24	
trans-1,4-Dichloro-2-butene	77.31	5.0	ug/L	104		74.4	54-134	7.29	27	
1,1,2,2-Tetrachloroethane	42.32	1.0	ug/L	49.8		84.9	61-131	6.23	29	
1,4-Dichlorobenzene	51.34	1.0	ug/L	50.0		103	70-129	5.71	24	
1,2-Dichlorobenzene	50.05	1.0	ug/L	50.0		100	69-126	6.94	26	
1,2-Dibromo-3-chloropropane	42.93	5.0	ug/L	50.0		85.9	50-143	2.71	30	
Surrogate: Dibromofluoromethane	*44.9*		ug/L	*50.2*		*89.4*	*80-126*			
Surrogate: Dibromofluoromethane	*44.9*		ug/L	*50.2*		*89.4*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*45.5*		ug/L	*50.1*		*90.9*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*45.5*		ug/L	*50.1*		*90.9*	*61-142*			
Surrogate: Toluene-d8	*48.3*		ug/L	*50.4*		*95.9*	*87-116*			
Surrogate: Toluene-d8	*48.3*		ug/L	*50.4*		*95.9*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*50.0*		ug/L	*50.1*		*99.7*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*50.0*		ug/L	*50.1*		*99.7*	*80-116*			
Matrix Spike (1HD0845-MS1)	**Source: 1HD0814-03**			Prepared: 04/12/24 00:00 Analyzed: 04/12/24 20:11						
Chloromethane	285.5	10.0	ug/L	306	ND	93.2	61-152			
Vinyl Chloride	263.5	10.0	ug/L	302	ND	87.2	66-149			
Bromomethane	215.1	10.0	ug/L	288	ND	74.7	43-171			
Chloroethane	292.0	10.0	ug/L	316	ND	92.3	69-148			
Trichlorofluoromethane	256.8	10.0	ug/L	326	ND	78.7	62-163			
1,1-Dichloroethylene	466.0	10.0	ug/L	500	ND	93.2	70-148			
Acetone	923.1	100	ug/L	1020	ND	90.5	45-173			
Methyl Iodide	996.0	10.0	ug/L	997	ND	99.9	62-167			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0845 - EPA 5030B - EPA 8260B										
Matrix Spike (1HD0845-MS1)	**Source: 1HD0814-03**	Prepared: 04/12/24 00:00 Analyzed: 04/12/24 20:11								
Carbon Disulfide	861.3	10.0	ug/L	1010	ND	85.3	71-163			
Methylene Chloride	429.3	50.0	ug/L	500	ND	85.9	69-140			
Acrylonitrile	684.0	50.0	ug/L	1000	ND	68.2	58-151			
trans-1,2-Dichloroethylene	458.5	10.0	ug/L	500	ND	91.7	69-144			
1,1-Dichloroethane	445.5	10.0	ug/L	500	ND	89.1	70-138			
Vinyl Acetate	1034	50.0	ug/L	1020	ND	101	58-142			
cis-1,2-Dichloroethylene	435.4	10.0	ug/L	495	ND	88.0	68-151			
2-Butanone (MEK)	823.0	100	ug/L	1030	ND	79.7	50-160			
Bromochloromethane	441.1	10.0	ug/L	500	ND	88.2	65-143			
Chloroform	444.7	10.0	ug/L	500	ND	88.9	71-143			
1,1,1-Trichloroethane	416.4	10.0	ug/L	500	ND	83.3	63-133			
Carbon Tetrachloride	451.9	10.0	ug/L	500	ND	90.4	63-142			
Benzene	480.9	10.0	ug/L	500	ND	96.2	69-133			
1,2-Dichloroethane	442.1	10.0	ug/L	500	ND	88.4	63-138			
Trichloroethylene	461.6	10.0	ug/L	500	ND	92.3	71-133			
1,2-Dichloropropane	444.9	10.0	ug/L	500	ND	89.0	69-132			
Dibromomethane	459.4	10.0	ug/L	500	ND	91.9	70-147			
Bromodichloromethane	430.5	10.0	ug/L	500	ND	86.1	67-130			
cis-1,3-Dichloropropene	402.5	10.0	ug/L	503	ND	80.0	61-126			
4-Methyl-2-pentanone (MIBK)	810.1	50.0	ug/L	1010	ND	79.9	55-147			
Toluene	480.8	10.0	ug/L	500	ND	96.2	71-133			
trans-1,3-Dichloropropene	389.3	10.0	ug/L	504	ND	77.2	63-124			
1,1,2-Trichloroethane	438.7	10.0	ug/L	500	ND	87.7	69-133			
Tetrachloroethylene	538.4	10.0	ug/L	500	ND	108	70-124			
2-Hexanone (MBK)	861.3	50.0	ug/L	1030	ND	83.4	53-141			
Dibromochloromethane	440.8	10.0	ug/L	495	ND	89.1	74-122			
1,2-Dibromoethane	431.1	10.0	ug/L	500	ND	86.2	66-127			
Chlorobenzene	493.0	10.0	ug/L	500	ND	98.6	76-116			
1,1,1,2-Tetrachloroethane	484.2	10.0	ug/L	500	ND	96.8	77-121			
Ethylbenzene	504.5	10.0	ug/L	500	ND	101	73-124			
Xylenes, total	1543	20.0	ug/L	1500	ND	103	75-123			
Styrene	485.5	10.0	ug/L	500	ND	97.1	70-120			
Bromoform	481.0	10.0	ug/L	500	ND	96.2	70-124			
1,2,3-Trichloropropane	448.2	10.0	ug/L	500	ND	89.6	62-135			
trans-1,4-Dichloro-2-butene	733.6	50.0	ug/L	1040	ND	70.6	50-120			
1,1,2,2-Tetrachloroethane	421.6	10.0	ug/L	498	ND	84.6	63-126			
1,4-Dichlorobenzene	498.8	10.0	ug/L	500	ND	99.8	72-119			
1,2-Dichlorobenzene	492.2	10.0	ug/L	500	ND	98.4	71-117			
1,2-Dibromo-3-chloropropane	438.6	50.0	ug/L	500	ND	87.7	49-134			
Surrogate: Dibromofluoromethane	*490*		ug/L	*502*		*97.6*	*80-126*			
Surrogate: Dibromofluoromethane	*490*		ug/L	*502*		*97.6*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*494*		ug/L	*501*		*98.6*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*494*		ug/L	*501*		*98.6*	*61-142*			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0845 - EPA 5030B - EPA 8260B										
Matrix Spike (1HD0845-MS1)	**Source: 1HD0814-03**		Prepared: 04/12/24 00:00 Analyzed: 04/12/24 20:11							
Surrogate: Toluene-d8	*488*		ug/L	*504*		*97.0*	*87-116*			
Surrogate: Toluene-d8	*488*		ug/L	*504*		*97.0*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*498*		ug/L	*501*		*99.3*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*498*		ug/L	*501*		*99.3*	*80-116*			
Matrix Spike Dup (1HD0845-MSD1)	**Source: 1HD0814-03**		Prepared: 04/12/24 00:00 Analyzed: 04/12/24 20:37							
Chloromethane	277.1	10.0	ug/L	306	ND	90.4	61-152	2.99	26	
Vinyl Chloride	253.5	10.0	ug/L	302	ND	83.9	66-149	3.87	23	
Bromomethane	226.9	10.0	ug/L	288	ND	78.8	43-171	5.34	29	
Chloroethane	282.7	10.0	ug/L	316	ND	89.4	69-148	3.24	25	
Trichlorofluoromethane	241.1	10.0	ug/L	326	ND	73.9	62-163	6.31	25	
1,1-Dichloroethylene	442.1	10.0	ug/L	500	ND	88.4	70-148	5.26	22	
Acetone	837.0	100	ug/L	1020	ND	82.1	45-173	9.78	30	
Methyl Iodide	970.9	10.0	ug/L	997	ND	97.4	62-167	2.55	24	
Carbon Disulfide	824.5	10.0	ug/L	1010	ND	81.6	71-163	4.37	22	
Methylene Chloride	417.8	50.0	ug/L	500	ND	83.6	69-140	2.72	19	
Acrylonitrile	657.5	50.0	ug/L	1000	ND	65.5	58-151	3.95	15	
trans-1,2-Dichloroethylene	424.2	10.0	ug/L	500	ND	84.8	69-144	7.77	22	
1,1-Dichloroethane	417.7	10.0	ug/L	500	ND	83.5	70-138	6.44	20	
Vinyl Acetate	1119	50.0	ug/L	1020	ND	110	58-142	7.96	24	
cis-1,2-Dichloroethylene	408.2	10.0	ug/L	495	ND	82.5	68-151	6.45	22	
2-Butanone (MEK)	766.8	100	ug/L	1030	ND	74.2	50-160	7.07	23	
Bromochloromethane	417.0	10.0	ug/L	500	ND	83.4	65-143	5.62	22	
Chloroform	414.4	10.0	ug/L	500	ND	82.9	71-143	7.05	21	
1,1,1-Trichloroethane	391.2	10.0	ug/L	500	ND	78.3	63-133	6.24	23	
Carbon Tetrachloride	425.4	10.0	ug/L	500	ND	85.1	63-142	6.04	22	
Benzene	468.1	10.0	ug/L	500	ND	93.6	69-133	2.70	18	
1,2-Dichloroethane	414.7	10.0	ug/L	500	ND	82.9	63-138	6.40	20	
Trichloroethylene	445.8	10.0	ug/L	500	ND	89.2	71-133	3.48	23	
1,2-Dichloropropane	437.5	10.0	ug/L	500	ND	87.5	69-132	1.68	20	
Dibromomethane	442.9	10.0	ug/L	500	ND	88.6	70-147	3.66	22	
Bromodichloromethane	408.7	10.0	ug/L	500	ND	81.7	67-130	5.20	21	
cis-1,3-Dichloropropene	393.1	10.0	ug/L	503	ND	78.1	61-126	2.36	21	
4-Methyl-2-pentanone (MIBK)	812.6	50.0	ug/L	1010	ND	80.1	55-147	0.308	23	
Toluene	476.4	10.0	ug/L	500	ND	95.3	71-133	0.919	19	
trans-1,3-Dichloropropene	386.0	10.0	ug/L	504	ND	76.5	63-124	0.851	21	
1,1,2-Trichloroethane	422.4	10.0	ug/L	500	ND	84.5	69-133	3.79	19	
Tetrachloroethylene	521.0	10.0	ug/L	500	ND	104	70-124	3.28	24	
2-Hexanone (MBK)	846.8	50.0	ug/L	1030	ND	82.0	53-141	1.70	24	
Dibromochloromethane	426.4	10.0	ug/L	495	ND	86.1	74-122	3.32	21	
1,2-Dibromoethane	418.6	10.0	ug/L	500	ND	83.7	66-127	2.94	23	
Chlorobenzene	488.3	10.0	ug/L	500	ND	97.7	76-116	0.958	21	
1,1,1,2-Tetrachloroethane	474.1	10.0	ug/L	500	ND	94.8	77-121	2.11	25	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0845 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1HD0845-MSD1)	**Source: 1HD0814-03**		Prepared: 04/12/24 00:00 Analyzed: 04/12/24 20:37							
Ethylbenzene	497.0	10.0	ug/L	500	ND	99.4	73-124	1.50	20	
Xylenes, total	1537	20.0	ug/L	1500	ND	102	75-123	0.370	20	
Styrene	479.2	10.0	ug/L	500	ND	95.8	70-120	1.31	23	
Bromoform	471.7	10.0	ug/L	500	ND	94.3	70-124	1.95	22	
1,2,3-Trichloropropane	451.9	10.0	ug/L	500	ND	90.4	62-135	0.822	28	
trans-1,4-Dichloro-2-butene	738.2	50.0	ug/L	1040	ND	71.0	50-120	0.625	26	
1,1,2,2-Tetrachloroethane	421.1	10.0	ug/L	498	ND	84.5	63-126	0.119	24	
1,4-Dichlorobenzene	501.9	10.0	ug/L	500	ND	100	72-119	0.620	24	
1,2-Dichlorobenzene	499.3	10.0	ug/L	500	ND	99.9	71-117	1.43	24	
1,2-Dibromo-3-chloropropane	416.4	50.0	ug/L	500	ND	83.3	49-134	5.19	28	
Surrogate: Dibromofluoromethane	*461*		ug/L	*502*		*92.0*	*80-126*			
Surrogate: Dibromofluoromethane	*461*		ug/L	*502*		*92.0*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*458*		ug/L	*501*		*91.6*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*458*		ug/L	*501*		*91.6*	*61-142*			
Surrogate: Toluene-d8	*494*		ug/L	*504*		*98.0*	*87-116*			
Surrogate: Toluene-d8	*494*		ug/L	*504*		*98.0*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*502*		ug/L	*501*		*100*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*502*		ug/L	*501*		*100*	*80-116*			
Batch 1HD0944 - EPA 5030B - EPA 8260B										
Blank (1HD0944-BLK1)			Prepared: 04/15/24 00:00 Analyzed: 04/15/24 10:55							
Dichlorodifluoromethane	<1.0	1.0	ug/L							
Chloromethane	<1.0	1.0	ug/L							
Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							
Trichlorofluoromethane	<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							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<2.0	2.0	ug/L							
Methyl Iodide	<1.0	1.0	ug/L							
Carbon Disulfide	<1.0	1.0	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							

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0944 - EPA 5030B - EPA 8260B										
Blank (1HD0944-BLK1)				Prepared: 04/15/24 00:00 Analyzed: 04/15/24 10:55						
Methylene Chloride	<5.0	5.0	ug/L							
Acrylonitrile	<5.0	5.0	ug/L							
Acrylonitrile	<5.0	5.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
Vinyl Acetate	<5.0	5.0	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							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<5.0	5.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
1,1-Dichloropropene	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<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							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
Toluene	<1.0	1.0	ug/L							
Toluene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0944 - EPA 5030B - EPA 8260B										
Blank (1HD0944-BLK1)			Prepared: 04/15/24 00:00 Analyzed: 04/15/24 10:55							
Ethyl Methacrylate	<10.0	10.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<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							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<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							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
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							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-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-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L							
Surrogate: Dibromofluoromethane	*59.0*		ug/L	*50.2*		*118*	*80-126*			
Surrogate: Dibromofluoromethane	*59.0*		ug/L	*50.2*		*118*	*80-126*			
Surrogate: Dibromofluoromethane	*59.0*		ug/L	*50.2*		*118*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*60.2*		ug/L	*50.1*		*120*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*60.2*		ug/L	*50.1*		*120*	*63-138*			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0944 - EPA 5030B - EPA 8260B										
Blank (1HD0944-BLK1)			Prepared: 04/15/24 00:00 Analyzed: 04/15/24 10:55							
Surrogate: 1,2-Dichloroethane-d4	*60.2*		ug/L	*50.1*		*120*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*60.2*		ug/L	*50.1*		*120*	*61-142*			
Surrogate: Toluene-d8	*52.0*		ug/L	*50.4*		*103*	*87-116*			
Surrogate: Toluene-d8	*52.0*		ug/L	*50.4*		*103*	*87-116*			
Surrogate: Toluene-d8	*52.0*		ug/L	*50.4*		*103*	*87-116*			
Surrogate: Toluene-d8	*52.0*		ug/L	*50.4*		*103*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*51.0*		ug/L	*50.1*		*102*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*51.0*		ug/L	*50.1*		*102*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*51.0*		ug/L	*50.1*		*102*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*51.0*		ug/L	*50.1*		*102*	*80-116*			
LCS (1HD0944-BS1)			Prepared: 04/15/24 00:00 Analyzed: 04/15/24 09:35							**QM-18**
Dichlorodifluoromethane	40.19	1.0	ug/L	31.6		127	44-139			
Chloromethane	43.47	1.0	ug/L	30.6		142	56-152			
Chloromethane	43.47	1.0	ug/L	30.6		142	63-155			
Vinyl Chloride	39.95	1.0	ug/L	30.2		132	62-151			
Vinyl Chloride	39.95	1.0	ug/L	30.2		132	70-154			
Bromomethane	37.62	1.0	ug/L	28.8		131	61-162			
Bromomethane	37.62	1.0	ug/L	28.8		131	52-176			
Chloroethane	42.75	1.0	ug/L	31.6		135	69-138			
Chloroethane	42.75	1.0	ug/L	31.6		135	72-148			
Trichlorofluoromethane	40.36	1.0	ug/L	32.6		124	70-143			
Trichlorofluoromethane	40.36	1.0	ug/L	32.6		124	70-152			
Acrolein	103.6	10.0	ug/L	100		103	27-144			
1,1-Dichloroethylene	62.35	1.0	ug/L	50.0		125	76-140			
1,1-Dichloroethylene	62.35	1.0	ug/L	50.0		125	70-148			
Acetone	177.2	10.0	ug/L	102		174	51-156			QS-02
Acetone	177.2	10.0	ug/L	102		174	43-172			QS-02
Methyl Iodide	113.0	2.0	ug/L	99.7		113	81-166			
Methyl Iodide	113.0	1.0	ug/L	99.7		113	69-170			
Carbon Disulfide	112.9	1.0	ug/L	101		112	76-147			
Carbon Disulfide	112.9	1.0	ug/L	101		112	72-162			
Acetonitrile	118.6	10.0	ug/L	101		118	46-156			
Methylene Chloride	55.13	5.0	ug/L	50.0		110	67-139			
Methylene Chloride	55.13	5.0	ug/L	50.0		110	68-142			
Acrylonitrile	121.2	5.0	ug/L	100		121	67-144			
Acrylonitrile	121.2	5.0	ug/L	100		121	67-144			
trans-1,2-Dichloroethylene	61.74	1.0	ug/L	50.0		123	72-135			
trans-1,2-Dichloroethylene	61.74	1.0	ug/L	50.0		123	66-148			
1,1-Dichloroethane	60.70	1.0	ug/L	50.0		121	72-129			
1,1-Dichloroethane	60.70	1.0	ug/L	50.0		121	66-143			
Vinyl Acetate	134.5	5.0	ug/L	102		132	24-144			
Vinyl Acetate	134.5	5.0	ug/L	102		132	43-153			
2,2-Dichloropropane	57.88	1.0	ug/L	50.0		116	64-131			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0944 - EPA 5030B - EPA 8260B										
LCS (1HD0944-BS1)				Prepared: 04/15/24 00:00 Analyzed: 04/15/24 09:35						**QM-18**
cis-1,2-Dichloroethylene	60.07	1.0	ug/L	50.0		120	81-137			
cis-1,2-Dichloroethylene	60.07	1.0	ug/L	50.0		120	71-149			
2-Butanone (MEK)	157.9	5.0	ug/L	103		153	47-149			QS-02
2-Butanone (MEK)	157.9	10.0	ug/L	103		153	52-159			
Bromochloromethane	60.87	1.0	ug/L	50.0		122	75-138			
Bromochloromethane	60.87	1.0	ug/L	50.0		122	69-143			
Chloroform	58.04	1.0	ug/L	50.0		116	78-131			
Chloroform	58.04	1.0	ug/L	50.0		116	69-144			
1,1,1-Trichloroethane	57.20	1.0	ug/L	50.0		114	67-121			
1,1,1-Trichloroethane	57.20	1.0	ug/L	50.0		114	62-129			
1,1-Dichloropropene	57.51	1.0	ug/L	50.0		115	80-131			
Carbon Tetrachloride	57.93	1.0	ug/L	50.0		116	71-131			
Carbon Tetrachloride	57.93	1.0	ug/L	50.0		116	63-141			
Benzene	52.57	1.0	ug/L	50.0		105	77-130			
Benzene	52.57	1.0	ug/L	50.0		105	71-134			
1,2-Dichloroethane	49.77	1.0	ug/L	50.0		99.5	76-126			
1,2-Dichloroethane	49.77	1.0	ug/L	50.0		99.5	72-132			
Trichloroethylene	51.44	1.0	ug/L	50.0		103	80-124			
Trichloroethylene	51.44	1.0	ug/L	50.0		103	71-135			
1,2-Dichloropropane	52.62	1.0	ug/L	50.0		105	81-125			
1,2-Dichloropropane	52.62	1.0	ug/L	50.0		105	69-136			
Dibromomethane	52.31	1.0	ug/L	50.0		105	84-134			
Dibromomethane	52.31	1.0	ug/L	50.0		105	73-147			
Bromodichloromethane	50.73	1.0	ug/L	50.0		101	78-121			
Bromodichloromethane	50.73	1.0	ug/L	50.0		101	68-129			
cis-1,3-Dichloropropene	51.12	1.0	ug/L	50.0		102	78-120			
cis-1,3-Dichloropropene	51.12	1.0	ug/L	50.0		102	65-134			
4-Methyl-2-pentanone (MIBK)	115.8	5.0	ug/L	101		114	67-143			
4-Methyl-2-pentanone (MIBK)	115.8	5.0	ug/L	101		114	58-147			
Toluene	51.92	1.0	ug/L	50.0		104	77-130			
Toluene	51.92	1.0	ug/L	50.0		104	72-133			
trans-1,3-Dichloropropene	52.17	1.0	ug/L	50.0		104	77-123			
trans-1,3-Dichloropropene	52.17	1.0	ug/L	50.0		104	67-130			
Ethyl Methacrylate	108.9	10.0	ug/L	101		108	52-148			
1,1,2-Trichloroethane	51.49	1.0	ug/L	50.0		103	78-124			
1,1,2-Trichloroethane	51.49	1.0	ug/L	50.0		103	69-135			
Tetrachloroethylene	48.53	1.0	ug/L	50.0		97.1	73-124			
Tetrachloroethylene	48.53	1.0	ug/L	50.0		97.1	69-130			
1,3-Dichloropropane	55.03	1.0	ug/L	50.0		110	78-131			
2-Hexanone (MBK)	122.2	5.0	ug/L	103		118	57-145			
2-Hexanone (MBK)	122.2	5.0	ug/L	103		118	55-144			
Dibromochloromethane	47.64	1.0	ug/L	50.0		95.3	78-126			
Dibromochloromethane	47.64	1.0	ug/L	50.0		95.3	73-127			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0944 - EPA 5030B - EPA 8260B										
LCS (1HD0944-BS1)			Prepared: 04/15/24 00:00 Analyzed: 04/15/24 09:35							**QM-18**
1,2-Dibromoethane	47.72	1.0	ug/L	50.0		95.4	69-126			
1,2-Dibromoethane	47.72	1.0	ug/L	50.0		95.4	67-132			
Chlorobenzene	48.26	1.0	ug/L	50.0		96.5	76-120			
Chlorobenzene	48.26	1.0	ug/L	50.0		96.5	72-123			
1,1,1,2-Tetrachloroethane	48.71	1.0	ug/L	50.0		97.4	81-122			
1,1,1,2-Tetrachloroethane	48.71	1.0	ug/L	50.0		97.4	73-127			
Ethylbenzene	49.70	1.0	ug/L	50.0		99.4	74-121			
Ethylbenzene	49.70	1.0	ug/L	50.0		99.4	71-127			
Xylenes, total	148.9	2.0	ug/L	150		99.3	75-122			
Xylenes, total	148.9	2.0	ug/L	150		99.3	74-127			
Styrene	49.00	1.0	ug/L	50.0		98.0	76-119			
Styrene	49.00	1.0	ug/L	50.0		98.0	66-126			
Bromoform	46.62	1.0	ug/L	50.0		93.2	74-127			
Bromoform	46.62	1.0	ug/L	50.0		93.2	68-130			
1,2,3-Trichloropropane	51.06	1.0	ug/L	50.0		102	73-125			
1,2,3-Trichloropropane	51.06	1.0	ug/L	50.0		102	63-136			
trans-1,4-Dichloro-2-butene	95.01	5.0	ug/L	104		91.4	55-135			
trans-1,4-Dichloro-2-butene	95.01	5.0	ug/L	104		91.4	54-134			
1,1,2,2-Tetrachloroethane	52.47	1.0	ug/L	50.0		105	58-133			
1,1,2,2-Tetrachloroethane	52.47	1.0	ug/L	50.0		105	61-131			
1,3-Dichlorobenzene	49.93	1.0	ug/L	50.0		99.9	70-125			
1,4-Dichlorobenzene	48.14	1.0	ug/L	50.0		96.3	69-128			
1,4-Dichlorobenzene	48.14	1.0	ug/L	50.0		96.3	70-129			
1,2-Dichlorobenzene	50.33	1.0	ug/L	50.0		101	70-125			
1,2-Dichlorobenzene	50.33	1.0	ug/L	50.0		101	69-126			
1,2-Dibromo-3-chloropropane	51.40	1.0	ug/L	50.0		103	54-147			
1,2-Dibromo-3-chloropropane	51.40	5.0	ug/L	50.0		103	50-143			
1,2,4-Trichlorobenzene	52.73	1.0	ug/L	50.0		105	55-149			
Surrogate: Dibromofluoromethane	*58.8*		ug/L	*50.2*		*117*	*80-126*			
Surrogate: Dibromofluoromethane	*58.8*		ug/L	*50.2*		*117*	*80-126*			
Surrogate: Dibromofluoromethane	*58.8*		ug/L	*50.2*		*117*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*59.1*		ug/L	*50.1*		*118*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*59.1*		ug/L	*50.1*		*118*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*59.1*		ug/L	*50.1*		*118*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*59.1*		ug/L	*50.1*		*118*	*61-142*			
Surrogate: Toluene-d8	*53.7*		ug/L	*50.4*		*107*	*87-116*			
Surrogate: Toluene-d8	*53.7*		ug/L	*50.4*		*107*	*87-116*			
Surrogate: Toluene-d8	*53.7*		ug/L	*50.4*		*107*	*87-116*			
Surrogate: Toluene-d8	*53.7*		ug/L	*50.4*		*107*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*50.0*		ug/L	*50.1*		*99.7*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*50.0*		ug/L	*50.1*		*99.7*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*50.0*		ug/L	*50.1*		*99.7*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*50.0*		ug/L	*50.1*		*99.7*	*80-116*			
LCS Dup (1HD0944-BSD1)			Prepared: 04/15/24 00:00 Analyzed: 04/15/24 10:01							

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0944 - EPA 5030B - EPA 8260B										
LCS Dup (1HD0944-BSD1)			Prepared: 04/15/24 00:00 Analyzed: 04/15/24 10:01							
Dichlorodifluoromethane	36.15	1.0	ug/L	31.6		114	44-139	10.6	30	
Chloromethane	39.72	1.0	ug/L	30.6		130	56-152	9.02	30	
Chloromethane	39.72	1.0	ug/L	30.6		130	63-155	9.02	24	QM-18
Vinyl Chloride	36.19	1.0	ug/L	30.2		120	62-151	9.88	28	
Vinyl Chloride	36.19	1.0	ug/L	30.2		120	70-154	9.88	25	QM-18
Bromomethane	36.05	1.0	ug/L	28.8		125	61-162	4.26	28	
Bromomethane	36.05	1.0	ug/L	28.8		125	52-176	4.26	27	QM-18
Chloroethane	39.82	1.0	ug/L	31.6		126	69-138	7.10	29	
Chloroethane	39.82	1.0	ug/L	31.6		126	72-148	7.10	25	QM-18
Trichlorofluoromethane	37.30	1.0	ug/L	32.6		114	70-143	7.88	27	
Trichlorofluoromethane	37.30	1.0	ug/L	32.6		114	70-152	7.88	26	QM-18
Acrolein	100.8	10.0	ug/L	100		101	27-144	2.73	30	
1,1-Dichloroethylene	58.03	1.0	ug/L	50.0		116	76-140	7.18	30	
1,1-Dichloroethylene	58.03	1.0	ug/L	50.0		116	70-148	7.18	24	QM-18
Acetone	159.3	10.0	ug/L	102		156	51-156	10.7	30	
Acetone	159.3	10.0	ug/L	102		156	43-172	10.7	30	QM-18
Methyl Iodide	107.8	2.0	ug/L	99.7		108	81-166	4.78	29	
Methyl Iodide	107.8	1.0	ug/L	99.7		108	69-170	4.78	30	QM-18
Carbon Disulfide	105.6	1.0	ug/L	101		105	76-147	6.75	27	
Carbon Disulfide	105.6	1.0	ug/L	101		105	72-162	6.75	24	QM-18
Acetonitrile	115.0	10.0	ug/L	101		114	46-156	3.14	30	
Methylene Chloride	54.25	5.0	ug/L	50.0		108	67-139	1.61	26	
Methylene Chloride	54.25	5.0	ug/L	50.0		108	68-142	1.61	21	QM-18
Acrylonitrile	119.0	5.0	ug/L	100		119	67-144	1.82	24	QM-18
Acrylonitrile	119.0	5.0	ug/L	100		119	67-144	1.82	24	
trans-1,2-Dichloroethylene	58.08	1.0	ug/L	50.0		116	72-135	6.11	28	
trans-1,2-Dichloroethylene	58.08	1.0	ug/L	50.0		116	66-148	6.11	27	QM-18
1,1-Dichloroethane	57.81	1.0	ug/L	50.0		116	72-129	4.88	26	
1,1-Dichloroethane	57.81	1.0	ug/L	50.0		116	66-143	4.88	24	QM-18
Vinyl Acetate	144.0	5.0	ug/L	102		141	24-144	6.81	30	
Vinyl Acetate	144.0	5.0	ug/L	102		141	43-153	6.81	30	QM-18
2,2-Dichloropropane	54.17	1.0	ug/L	50.0		108	64-131	6.62	26	
cis-1,2-Dichloroethylene	59.52	1.0	ug/L	50.0		119	81-137	0.920	27	
cis-1,2-Dichloroethylene	59.52	1.0	ug/L	50.0		119	71-149	0.920	26	QM-18
2-Butanone (MEK)	150.0	5.0	ug/L	103		145	47-149	5.14	30	
2-Butanone (MEK)	150.0	10.0	ug/L	103		145	52-159	5.14	27	QM-18
Bromochloromethane	59.05	1.0	ug/L	50.0		118	75-138	3.04	24	
Bromochloromethane	59.05	1.0	ug/L	50.0		118	69-143	3.04	23	QM-18
Chloroform	56.00	1.0	ug/L	50.0		112	78-131	3.58	27	
Chloroform	56.00	1.0	ug/L	50.0		112	69-144	3.58	23	QM-18
1,1,1-Trichloroethane	54.20	1.0	ug/L	50.0		108	67-121	5.39	28	
1,1,1-Trichloroethane	54.20	1.0	ug/L	50.0		108	62-129	5.39	24	QM-18
1,1-Dichloropropene	54.07	1.0	ug/L	50.0		108	80-131	6.17	30	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0944 - EPA 5030B - EPA 8260B										
LCS Dup (1HD0944-BSD1)			Prepared: 04/15/24 00:00 Analyzed: 04/15/24 10:01							
Carbon Tetrachloride	54.42	1.0	ug/L	50.0		109	71-131	6.25	28	
Carbon Tetrachloride	54.42	1.0	ug/L	50.0		109	63-141	6.25	25	QM-18
Benzene	50.18	1.0	ug/L	50.0		100	77-130	4.65	25	
Benzene	50.18	1.0	ug/L	50.0		100	71-134	4.65	24	QM-18
1,2-Dichloroethane	49.25	1.0	ug/L	50.0		98.5	76-126	1.05	24	
1,2-Dichloroethane	49.25	1.0	ug/L	50.0		98.5	72-132	1.05	24	QM-18
Trichloroethylene	48.68	1.0	ug/L	50.0		97.4	80-124	5.51	27	
Trichloroethylene	48.68	1.0	ug/L	50.0		97.4	71-135	5.51	24	QM-18
1,2-Dichloropropane	50.98	1.0	ug/L	50.0		102	81-125	3.17	25	
1,2-Dichloropropane	50.98	1.0	ug/L	50.0		102	69-136	3.17	24	QM-18
Dibromomethane	51.82	1.0	ug/L	50.0		104	84-134	0.941	23	
Dibromomethane	51.82	1.0	ug/L	50.0		104	73-147	0.941	25	QM-18
Bromodichloromethane	49.59	1.0	ug/L	50.0		99.2	78-121	2.27	25	
Bromodichloromethane	49.59	1.0	ug/L	50.0		99.2	68-129	2.27	22	QM-18
cis-1,3-Dichloropropene	49.99	1.0	ug/L	50.0		100	78-120	2.24	26	
cis-1,3-Dichloropropene	49.99	1.0	ug/L	50.0		100	65-134	2.24	23	QM-18
4-Methyl-2-pentanone (MIBK)	115.2	5.0	ug/L	101		114	67-143	0.554	26	
4-Methyl-2-pentanone (MIBK)	115.2	5.0	ug/L	101		114	58-147	0.554	27	QM-18
Toluene	49.70	1.0	ug/L	50.0		99.4	77-130	4.37	27	
Toluene	49.70	1.0	ug/L	50.0		99.4	72-133	4.37	24	QM-18
trans-1,3-Dichloropropene	51.25	1.0	ug/L	50.0		102	77-123	1.78	28	
trans-1,3-Dichloropropene	51.25	1.0	ug/L	50.0		102	67-130	1.78	24	QM-18
Ethyl Methacrylate	107.3	10.0	ug/L	101		107	52-148	1.46	30	
1,1,2-Trichloroethane	51.30	1.0	ug/L	50.0		103	78-124	0.370	24	
1,1,2-Trichloroethane	51.30	1.0	ug/L	50.0		103	69-135	0.370	23	QM-18
Tetrachloroethylene	46.56	1.0	ug/L	50.0		93.1	73-124	4.14	26	
Tetrachloroethylene	46.56	1.0	ug/L	50.0		93.1	69-130	4.14	25	QM-18
1,3-Dichloropropane	54.92	1.0	ug/L	50.0		110	78-131	0.200	24	
2-Hexanone (MBK)	118.9	5.0	ug/L	103		115	57-145	2.74	30	
2-Hexanone (MBK)	118.9	5.0	ug/L	103		115	55-144	2.74	25	QM-18
Dibromochloromethane	47.05	1.0	ug/L	50.0		94.1	78-126	1.25	23	
Dibromochloromethane	47.05	1.0	ug/L	50.0		94.1	73-127	1.25	22	QM-18
1,2-Dibromoethane	47.78	1.0	ug/L	50.0		95.6	69-126	0.126	22	
1,2-Dibromoethane	47.78	1.0	ug/L	50.0		95.6	67-132	0.126	24	QM-18
Chlorobenzene	47.14	1.0	ug/L	50.0		94.3	76-120	2.35	25	
Chlorobenzene	47.14	1.0	ug/L	50.0		94.3	72-123	2.35	23	QM-18
1,1,1,2-Tetrachloroethane	47.80	1.0	ug/L	50.0		95.6	81-122	1.89	23	
1,1,1,2-Tetrachloroethane	47.80	1.0	ug/L	50.0		95.6	73-127	1.89	24	QM-18
Ethylbenzene	48.20	1.0	ug/L	50.0		96.4	74-121	3.06	27	
Ethylbenzene	48.20	1.0	ug/L	50.0		96.4	71-127	3.06	26	QM-18
Xylenes, total	143.8	2.0	ug/L	150		95.8	75-122	3.55	26	
Xylenes, total	143.8	2.0	ug/L	150		95.8	74-127	3.55	25	QM-18
Styrene	48.10	1.0	ug/L	50.0		96.2	76-119	1.85	26	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0944 - EPA 5030B - EPA 8260B										
LCS Dup (1HD0944-BSD1)	Prepared: 04/15/24 00:00 Analyzed: 04/15/24 10:01									
Styrene	48.10	1.0	ug/L	50.0		96.2	66-126	1.85	23	QM-18
Bromoform	46.20	1.0	ug/L	50.0		92.4	74-127	0.905	22	
Bromoform	46.20	1.0	ug/L	50.0		92.4	68-130	0.905	23	QM-18
1,2,3-Trichloropropane	50.56	1.0	ug/L	50.0		101	73-125	0.984	20	
1,2,3-Trichloropropane	50.56	1.0	ug/L	50.0		101	63-136	0.984	24	QM-18
trans-1,4-Dichloro-2-butene	94.42	5.0	ug/L	104		90.9	55-135	0.623	26	
trans-1,4-Dichloro-2-butene	94.42	5.0	ug/L	104		90.9	54-134	0.623	27	QM-18
1,1,2,2-Tetrachloroethane	51.72	1.0	ug/L	50.0		103	58-133	1.44	28	
1,1,2,2-Tetrachloroethane	51.72	1.0	ug/L	50.0		103	61-131	1.44	29	QM-18
1,3-Dichlorobenzene	48.62	1.0	ug/L	50.0		97.3	70-125	2.66	27	
1,4-Dichlorobenzene	47.39	1.0	ug/L	50.0		94.8	69-128	1.57	29	
1,4-Dichlorobenzene	47.39	1.0	ug/L	50.0		94.8	70-129	1.57	24	QM-18
1,2-Dichlorobenzene	49.19	1.0	ug/L	50.0		98.4	70-125	2.29	25	
1,2-Dichlorobenzene	49.19	1.0	ug/L	50.0		98.4	69-126	2.29	26	QM-18
1,2-Dibromo-3-chloropropane	51.64	1.0	ug/L	50.0		103	54-147	0.466	29	
1,2-Dibromo-3-chloropropane	51.64	5.0	ug/L	50.0		103	50-143	0.466	30	QM-18
1,2,4-Trichlorobenzene	51.41	1.0	ug/L	50.0		103	55-149	2.54	30	
Surrogate: Dibromofluoromethane	*58.4*		ug/L	*50.2*		*116*	*80-126*			
Surrogate: Dibromofluoromethane	*58.4*		ug/L	*50.2*		*116*	*80-126*			*QM-18*
Surrogate: Dibromofluoromethane	*58.4*		ug/L	*50.2*		*116*	*75-136*			*QM-18*
Surrogate: 1,2-Dichloroethane-d4	*58.5*		ug/L	*50.1*		*117*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*58.5*		ug/L	*50.1*		*117*	*63-138*			*QM-18*
Surrogate: 1,2-Dichloroethane-d4	*58.5*		ug/L	*50.1*		*117*	*63-138*			
Surrogate: 1,2-Dichloroethane-d4	*58.5*		ug/L	*50.1*		*117*	*61-142*			*QM-18*
Surrogate: Toluene-d8	*53.0*		ug/L	*50.4*		*105*	*87-116*			
Surrogate: Toluene-d8	*53.0*		ug/L	*50.4*		*105*	*87-116*			*QM-18*
Surrogate: Toluene-d8	*53.0*		ug/L	*50.4*		*105*	*87-116*			
Surrogate: Toluene-d8	*53.0*		ug/L	*50.4*		*105*	*82-121*			*QM-18*
Surrogate: 4-Bromofluorobenzene	*49.8*		ug/L	*50.1*		*99.2*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*49.8*		ug/L	*50.1*		*99.2*	*85-111*			*QM-18*
Surrogate: 4-Bromofluorobenzene	*49.8*		ug/L	*50.1*		*99.2*	*85-111*			
Surrogate: 4-Bromofluorobenzene	*49.8*		ug/L	*50.1*		*99.2*	*80-116*			*QM-18*
Batch 1HD1128 - EPA 5030B - EPA 8260B										
Blank (1HD1128-BLK1)	Prepared: 04/17/24 00:00 Analyzed: 04/17/24 10:52									
Allyl chloride	<1.0	1.0	ug/L							
Chloroprene	<1.0	1.0	ug/L							
Methacrylonitrile	<1.0	1.0	ug/L							
Methyl Methacrylate	<1.0	1.0	ug/L							
Propionitrile	<10.0	10.0	ug/L							
Surrogate: Dibromofluoromethane	*50.8*		ug/L	*50.2*		*101*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*52.2*		ug/L	*50.1*		*104*	*63-138*			
Surrogate: Toluene-d8	*49.8*		ug/L	*50.4*		*98.9*	*87-116*			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1128 - EPA 5030B - EPA 8260B										
Blank (1HD1128-BLK1)			Prepared: 04/17/24 00:00 Analyzed: 04/17/24 10:52							
Surrogate: 4-Bromofluorobenzene	*50.1*		ug/L	*50.1*		*100*	*85-111*			
LCS (1HD1128-BS1)			Prepared: 04/17/24 00:00 Analyzed: 04/17/24 09:43							
Allyl chloride	32.69	1.0	ug/L	35.7		91.5	76-134			
Chloroprene	57.08	1.0	ug/L	50.0		114	74-141			
Methacrylonitrile	65.34	1.0	ug/L	64.3		102	73-143			
Methyl Methacrylate	58.27	1.0	ug/L	57.3		102	72-123			
Propionitrile	83.18	10.0	ug/L	50.0		166	50-151			QS-02
Surrogate: Dibromofluoromethane	*51.6*		ug/L	*50.2*		*103*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*51.4*		ug/L	*50.1*		*103*	*63-138*			
Surrogate: Toluene-d8	*50.5*		ug/L	*50.4*		*100*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*50.5*		ug/L	*50.1*		*101*	*85-111*			
LCS Dup (1HD1128-BSD1)			Prepared: 04/17/24 00:00 Analyzed: 04/17/24 10:06							
Allyl chloride	32.20	1.0	ug/L	35.7		90.1	76-134	1.51	30	
Chloroprene	55.85	1.0	ug/L	50.0		112	74-141	2.18	30	
Methacrylonitrile	65.46	1.0	ug/L	64.3		102	73-143	0.183	30	
Methyl Methacrylate	59.32	1.0	ug/L	57.3		103	72-123	1.79	30	
Propionitrile	84.20	10.0	ug/L	50.0		168	50-151	1.22	30	QS-02
Surrogate: Dibromofluoromethane	*51.5*		ug/L	*50.2*		*103*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*51.7*		ug/L	*50.1*		*103*	*63-138*			
Surrogate: Toluene-d8	*50.5*		ug/L	*50.4*		*100*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*50.4*		ug/L	*50.1*		*100*	*85-111*			
Matrix Spike (1HD1128-MS1)	**Source: 1HD0953-07**		Prepared: 04/17/24 00:00 Analyzed: 04/17/24 20:16							
Allyl chloride	289.7	10.0	ug/L	357	ND	81.1	60-140			
Chloroprene	514.1	10.0	ug/L	500	ND	103	60-140			
Methacrylonitrile	585.4	10.0	ug/L	643	ND	91.1	60-140			
Methyl Methacrylate	554.8	10.0	ug/L	573	ND	96.8	60-140			
Propionitrile	783.3	100	ug/L	500	ND	157	60-140			QS-02
Surrogate: Dibromofluoromethane	*477*		ug/L	*502*		*95.1*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*484*		ug/L	*501*		*96.7*	*63-138*			
Surrogate: Toluene-d8	*503*		ug/L	*504*		*99.8*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*497*		ug/L	*501*		*99.2*	*85-111*			
Matrix Spike Dup (1HD1128-MSD1)	**Source: 1HD0953-07**		Prepared: 04/17/24 00:00 Analyzed: 04/17/24 20:39							
Allyl chloride	285.6	10.0	ug/L	357	ND	79.9	60-140	1.43	30	
Chloroprene	502.1	10.0	ug/L	500	ND	100	60-140	2.36	30	
Methacrylonitrile	581.1	10.0	ug/L	643	ND	90.4	60-140	0.737	30	
Methyl Methacrylate	562.0	10.0	ug/L	573	ND	98.0	60-140	1.29	30	
Propionitrile	752.2	100	ug/L	500	ND	150	60-140	4.05	30	QS-02
Surrogate: Dibromofluoromethane	*476*		ug/L	*502*		*94.9*	*80-126*			
Surrogate: 1,2-Dichloroethane-d4	*482*		ug/L	*501*		*96.3*	*63-138*			
Surrogate: Toluene-d8	*495*		ug/L	*504*		*98.2*	*87-116*			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1128 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1HD1128-MSD1)	**Source: 1HD0953-07**		Prepared: 04/17/24 00:00 Analyzed: 04/17/24 20:39							
Surrogate: 4-Bromofluorobenzene	*504*		ug/L	*501*		*100*	*85-111*			

Determination of General Solvents	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0875 - Semi-Vol GC - EPA 8015C										
Blank (1HD0875-BLK1)			Prepared: 04/15/24 08:30 Analyzed: 04/15/24 16:51							
Isobutanol	<1.0	1.0	mg/L							
LCS (1HD0875-BS1)			Prepared: 04/15/24 08:30 Analyzed: 04/15/24 14:19							
Isobutanol	27.31	1.0	mg/L	26.0		105	40-135			
Matrix Spike (1HD0875-MS1)	**Source: 1HD0193-01**		Prepared: 04/15/24 08:30 Analyzed: 04/15/24 22:12							
Isobutanol	27.26	1.0	mg/L	26.0	ND	105	63-135			
Matrix Spike Dup (1HD0875-MSD1)	**Source: 1HD0193-01**		Prepared: 04/15/24 08:30 Analyzed: 04/15/24 22:43							
Isobutanol	26.89	1.0	mg/L	26.0	ND	103	63-135	1.35	30	

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0906 - 3520C BNA Cont Liq - EPA 8270C										
Blank (1HD0906-BLK1)			Prepared: 04/15/24 13:45 Analyzed: 04/29/24 16:14							
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							

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0906 - 3520C BNA Cont Liq - EPA 8270C										
Blank (1HD0906-BLK1)				Prepared: 04/15/24 13:45 Analyzed: 04/29/24 16:14						
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							
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							

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0906 - 3520C BNA Cont Liq - EPA 8270C										
Blank (1HD0906-BLK1)				Prepared: 04/15/24 13:45 Analyzed: 04/29/24 16:14						
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							
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	*21.3*		ug/L	*29.6*		*72.0*	*24-136*			
Surrogate: Phenol-d6	*22.9*		ug/L	*30.5*		*75.2*	*15-140*			
Surrogate: Nitrobenzene-d5	*23.2*		ug/L	*30.0*		*77.3*	*29-130*			
Surrogate: 2-Fluorobiphenyl	*19.9*		ug/L	*28.8*		*69.0*	*23-113*			

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0906 - 3520C BNA Cont Liq - EPA 8270C										
Blank (1HD0906-BLK1)			Prepared: 04/15/24 13:45 Analyzed: 04/29/24 16:14							
Surrogate: 2,4,6-Tribromophenol	*25.2*		ug/L	*29.7*		*84.8*	*15-139*			
Surrogate: Terphenyl-dl4	*27.5*		ug/L	*28.8*		*95.5*	*27-141*			
LCS (1HD0906-BS1)			Prepared: 04/15/24 13:45 Analyzed: 04/29/24 16:39							
N-Nitrosodimethylamine	20.3	8	ug/L	25.0		81.4	36-138			
Methyl Methanesulfonate	18.7	8	ug/L	25.0		74.6	22-114			
N-Nitrosodiethylamine	43.2	8	ug/L	100		43.2	52-114			QS-03
N-Nitrosomethylethylamine	44.5	8	ug/L	100		44.5	36-120			
Ethyl Methanesulfonate	20.9	8	ug/L	25.0		83.4	46-110			
Phenol	21.6	8	ug/L	25.0		86.5	50-112			
Bis(2-Chloroethyl) Ether	18.8	8	ug/L	25.0		75.0	39-151			
2-Chlorophenol	20.2	8	ug/L	25.0		80.8	56-116			
Benzyl Alcohol	24.0	8	ug/L	25.0		95.8	13-158			
2-Methylphenol (o-Cresol)	21.2	8	ug/L	25.0		84.8	53-131			
Bis[2-Chloroisopropyl]ether	24.3	8	ug/L	25.0		97.1	50-121			
n-Nitroso-di-n-propylamine	23.6	8	ug/L	25.0		94.4	50-138			
N-Nitrosopyrrolidine	44.2	8	ug/L	100		44.2	31-118			
Acetophenone	22.2	8	ug/L	25.0		88.8	45-104			
o-Toluidine	29.9	8	ug/L	100		29.9	10-163			
(3 & 4)-Methylphenol	23.9	8	ug/L	25.0		95.6	30-164			
Hexachloroethane	15.7	8	ug/L	25.0		62.9	10-110			
Nitrobenzene	24.5	8	ug/L	25.0		97.8	47-134			
N-Nitrosopiperidine	47.8	8	ug/L	100		47.8	51-122			QS-03
Isophorone	25.0	8	ug/L	25.0		99.9	54-128			
2-Nitrophenol	24.5	8	ug/L	25.0		98.1	54-117			
2,4-Dimethylphenol	25.6	8	ug/L	25.0		103	52-118			
Bis (2-Chloroethoxy) Methane	12.4	8	ug/L	25.0		49.8	13-132			
2,4-Dichlorophenol	25.7	8	ug/L	25.0		103	58-114			
Naphthalene	22.4	8	ug/L	25.0		89.4	37-116			
2,6-Dichlorophenol	23.4	8	ug/L	25.0		93.5	52-129			
Hexachloropropene	10.7	8	ug/L	25.0		42.8	14-110			
Hexachlorobutadiene	12.5	8	ug/L	25.0		49.9	14-110			
N-Nitrosodi-n-butylamine	47.0	8	ug/L	100		47.0	40-135			
4-Chloro-3-methylphenol	27.0	8	ug/L	25.0		108	57-136			
2-Methylnaphthalene	21.7	8	ug/L	25.0		86.7	44-111			
Isosafrole	20.0	8	ug/L	25.0		80.2	49-107			
1,2,4,5-Tetrachlorobenzene	14.0	8	ug/L	25.0		56.1	42-110			
Hexachlorocyclopentadiene	16.2	8	ug/L	25.0		64.6	11-110			
2,4,6-Trichlorophenol	24.2	8	ug/L	25.0		96.6	55-120			
2,4,5-Trichlorophenol	26.3	8	ug/L	25.0		105	55-121			
Safrole	13.5	8	ug/L	25.0		53.8	40-118			
2-Chloronaphthalene	15.2	8	ug/L	25.0		60.9	47-127			

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0906 - 3520C BNA Cont Liq - EPA 8270C										
LCS (1HD0906-BS1)				Prepared: 04/15/24 13:45 Analyzed: 04/29/24 16:39						
2-Nitroaniline	24.0	8	ug/L	25.0		96.1	36-143			
Dimethylphthalate	24.5	8	ug/L	25.0		98.0	59-128			
1,3-Dinitrobenzene	24.2	8	ug/L	25.0		96.8	63-125			
1,2-Dinitrobenzene	24.9	8	ug/L	25.0		99.6	63-123			
2,6-Dinitrotoluene	24.6	8	ug/L	25.0		98.6	60-127			
Acenaphthylene	18.9	8	ug/L	25.0		75.5	49-113			
Acenaphthene	22.1	8	ug/L	25.0		88.6	50-119			
2,4-Dinitrophenol	26.2	8	ug/L	25.0		105	27-157			
4-Nitrophenol	24.4	8	ug/L	25.0		97.4	49-154			
Dibenzofuran	22.6	8	ug/L	25.0		90.6	56-121			
2,4-Dinitrotoluene	25.3	8	ug/L	25.0		101	53-138			
2,3,4,6-Tetrachlorophenol	25.4	8	ug/L	25.0		101	47-132			
Pentachlorobenzene	19.6	8	ug/L	25.0		78.4	41-125			
Diethyl Phthalate	25.9	8	ug/L	25.0		103	53-138			
Fluorene	24.1	8	ug/L	25.0		96.3	54-125			
4-Chlorophenyl Phenyl Ether	23.2	8	ug/L	25.0		92.6	51-122			
4-Nitroaniline	<8	8	ug/L	25.0		31.4	10-136			
4,6-Dinitro-2-methylphenol	24.4	8	ug/L	25.0		97.6	49-137			
Diphenylamine	18.6	8	ug/L	25.0		74.2	35-151			
Azobenzene	23.6	8	ug/L	25.0		94.5	16-156			
Diallate	22.8	8	ug/L	25.0		91.3	54-132			
1,3,5-Trinitrobenzene	23.7	8	ug/L	25.0		94.9	57-173			
Phenacetin	23.9	8	ug/L	25.0		95.6	55-121			
4-Bromophenyl Phenyl Ether	22.8	8	ug/L	25.0		91.4	53-122			
Pentachlorophenol	25.4	8	ug/L	25.0		102	18-152			
Pronamide	19.2	8	ug/L	25.0		76.8	42-122			
Pentachloronitrobenzene (PCNB)	24.0	8	ug/L	25.0		95.9	50-128			
Phenanthrene	24.0	8	ug/L	25.0		96.2	59-131			
Anthracene	22.1	8	ug/L	25.0		88.3	59-127			
Di-n-butyl Phthalate	26.0	8	ug/L	25.0		104	64-148			
Fluoranthene	26.0	8	ug/L	25.0		104	62-132			
Isodrin	23.3	8	ug/L	25.0		93.2	46-130			
Chlorobenzilate	22.3	8	ug/L	25.0		89.1	48-150			
Pyrene	26.4	8	ug/L	25.0		106	58-135			
p-(Dimethylamino)azobenzene	26.2	8	ug/L	100		26.2	28-146			QS-03
Butyl Benzyl Phthalate	24.2	8	ug/L	25.0		96.6	52-150			
Benzo(a)anthracene	24.3	8	ug/L	25.0		97.0	58-131			
Chrysene	25.4	8	ug/L	25.0		101	59-131			
Bis(2-Ethylhexyl) Phthalate	26.4	6	ug/L	25.0		105	33-184			
2-Acetylaminofluorene	57.8	8	ug/L	100		57.8	47-166			
Di-n-octyl Phthalate	29.6	8	ug/L	25.0		118	48-162			
Benzo(b)Fluoranthene	29.0	8	ug/L	25.0		116	50-146			

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0906 - 3520C BNA Cont Liq - EPA 8270C										
LCS (1HD0906-BS1)			Prepared: 04/15/24 13:45 Analyzed: 04/29/24 16:39							
7,12-Dimethylbenz [a] anthracene	20.4	8	ug/L	25.0		81.7	22-155			
Benzo(k)Fluoranthene	27.1	8	ug/L	25.0		109	54-144			
Benzo(a)Pyrene	22.2	8	ug/L	25.0		88.9	39-148			
3-Methylcholanthrene	11.5	8	ug/L	25.0		46.1	34-118			
Dibenzo(a,h)anthracene	27.7	8	ug/L	25.0		111	46-153			
Indeno(1,2,3-cd)Pyrene	26.8	8	ug/L	25.0		107	48-152			
Benzo(g,h,i)perylene	26.1	8	ug/L	25.0		104	47-161			
Surrogate: 2-Fluorophenol	*23.9*		ug/L	*29.6*		*80.9*	*24-136*			
Surrogate: Phenol-d6	*25.6*		ug/L	*30.5*		*84.2*	*15-140*			
Surrogate: Nitrobenzene-d5	*28.9*		ug/L	*30.0*		*96.2*	*38-115*			
Surrogate: 2-Fluorobiphenyl	*24.8*		ug/L	*28.8*		*86.1*	*33-110*			
Surrogate: 2,4,6-Tribromophenol	*31.4*		ug/L	*29.7*		*105*	*15-139*			
Surrogate: Terphenyl-dl4	*32.0*		ug/L	*28.8*		*111*	*30-142*			
LCS Dup (1HD0906-BSD1)			Prepared: 04/15/24 13:45 Analyzed: 04/29/24 17:03							
N-Nitrosodimethylamine	18.8	8	ug/L	25.0		75.3	36-138	7.76	30	
Methyl Methanesulfonate	17.9	8	ug/L	25.0		71.5	22-114	4.33	23	
N-Nitrosodiethylamine	40.4	8	ug/L	100		40.4	52-114	6.69	18	QS-03
N-Nitrosomethylethylamine	42.4	8	ug/L	100		42.4	36-120	4.70	22	
Ethyl Methanesulfonate	18.8	8	ug/L	25.0		75.2	46-110	10.4	24	
Phenol	20.5	8	ug/L	25.0		82.2	50-112	5.12	28	
Bis(2-Chloroethyl) Ether	16.9	8	ug/L	25.0		67.4	39-151	10.7	30	
2-Chlorophenol	20.1	8	ug/L	25.0		80.4	56-116	0.546	22	
Benzyl Alcohol	22.3	8	ug/L	25.0		89.2	13-158	7.18	30	
2-Methylphenol (o-Cresol)	20.5	8	ug/L	25.0		82.0	53-131	3.31	25	
Bis[2-Chloroisopropyl]ether	20.1	8	ug/L	25.0		80.5	50-121	18.7	25	
n-Nitroso-di-n-propylamine	22.4	8	ug/L	25.0		89.7	50-138	5.04	30	
N-Nitrosopyrrolidine	41.4	8	ug/L	100		41.4	31-118	6.50	30	
Acetophenone	20.6	8	ug/L	25.0		82.2	45-104	7.67	30	
o-Toluidine	28.2	8	ug/L	100		28.2	10-163	5.72	30	
(3 & 4)-Methylphenol	22.6	8	ug/L	25.0		90.3	30-164	5.72	30	
Hexachloroethane	13.6	8	ug/L	25.0		54.5	10-110	14.4	37	
Nitrobenzene	22.5	8	ug/L	25.0		89.9	47-134	8.48	28	
N-Nitrosopiperidine	43.9	8	ug/L	100		43.9	51-122	8.38	30	QS-03
Isophorone	22.5	8	ug/L	25.0		89.8	54-128	10.6	22	
2-Nitrophenol	22.2	8	ug/L	25.0		88.8	54-117	9.97	21	
2,4-Dimethylphenol	22.9	8	ug/L	25.0		91.8	52-118	11.2	23	
Bis (2-Chloroethoxy) Methane	18.7	8	ug/L	25.0		74.6	13-132	40.0	30	QR-02
2,4-Dichlorophenol	23.6	8	ug/L	25.0		94.4	58-114	8.48	20	
Naphthalene	19.5	8	ug/L	25.0		78.0	37-116	13.6	17	
2,6-Dichlorophenol	21.6	8	ug/L	25.0		86.4	52-129	7.91	16	
Hexachloropropene	8.9	8	ug/L	25.0		35.4	14-110	18.7	29	
Hexachlorobutadiene	11.4	8	ug/L	25.0		45.8	14-110	8.70	29	

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0906 - 3520C BNA Cont Liq - EPA 8270C										
LCS Dup (1HD0906-BSD1)				Prepared: 04/15/24 13:45 Analyzed: 04/29/24 17:03						
N-Nitrosodi-n-butylamine	43.7	8	ug/L	100		43.7	40-135	7.26	23	
4-Chloro-3-methylphenol	24.9	8	ug/L	25.0		99.6	57-136	8.20	18	
2-Methylnaphthalene	18.4	8	ug/L	25.0		73.5	44-111	16.5	20	
Isosafrole	18.1	8	ug/L	25.0		72.4	49-107	10.2	12	
1,2,4,5-Tetrachlorobenzene	12.9	8	ug/L	25.0		51.7	42-110	8.17	30	
Hexachlorocyclopentadiene	11.1	8	ug/L	25.0		44.3	11-110	37.3	29	QR-02
2,4,6-Trichlorophenol	24.5	8	ug/L	25.0		98.0	55-120	1.44	15	
2,4,5-Trichlorophenol	25.9	8	ug/L	25.0		104	55-121	1.49	16	
Safrole	19.0	8	ug/L	25.0		75.9	40-118	34.0	30	QR-02
2-Chloronaphthalene	14.1	8	ug/L	25.0		56.4	47-127	7.71	17	
2-Nitroaniline	24.6	8	ug/L	25.0		98.6	36-143	2.55	30	
Dimethylphthalate	25.8	8	ug/L	25.0		103	59-128	5.25	15	
1,3-Dinitrobenzene	27.1	8	ug/L	25.0		108	63-125	11.2	14	
1,2-Dinitrobenzene	25.5	8	ug/L	25.0		102	63-123	2.26	18	
2,6-Dinitrotoluene	25.8	8	ug/L	25.0		103	60-127	4.64	13	
Acenaphthylene	21.7	8	ug/L	25.0		86.8	49-113	13.9	23	
Acenaphthene	20.9	8	ug/L	25.0		83.7	50-119	5.67	16	
2,4-Dinitrophenol	29.8	8	ug/L	25.0		119	27-157	12.6	23	
4-Nitrophenol	23.7	8	ug/L	25.0		95.0	49-154	2.58	28	
Dibenzofuran	22.3	8	ug/L	25.0		89.1	56-121	1.69	18	
2,4-Dinitrotoluene	24.7	8	ug/L	25.0		98.6	53-138	2.56	18	
2,3,4,6-Tetrachlorophenol	28.6	8	ug/L	25.0		114	47-132	11.9	29	
Pentachlorobenzene	19.2	8	ug/L	25.0		76.7	41-125	2.17	22	
Diethyl Phthalate	26.5	8	ug/L	25.0		106	53-138	2.60	18	
Fluorene	22.5	8	ug/L	25.0		89.9	54-125	6.83	14	
4-Chlorophenyl Phenyl Ether	21.9	8	ug/L	25.0		87.7	51-122	5.46	15	
4-Nitroaniline	9.1	8	ug/L	25.0		36.4	10-136	15.0	30	
4,6-Dinitro-2-methylphenol	25.0	8	ug/L	25.0		100	49-137	2.47	16	
Diphenylamine	21.2	8	ug/L	25.0		84.8	35-151	13.3	30	
Azobenzene	23.4	8	ug/L	25.0		93.6	16-156	0.893	30	
Diallate	22.4	8	ug/L	25.0		89.6	54-132	1.90	25	
1,3,5-Trinitrobenzene	23.2	8	ug/L	25.0		93.0	57-173	2.04	30	
Phenacetin	23.4	8	ug/L	25.0		93.8	55-121	1.90	30	
4-Bromophenyl Phenyl Ether	23.3	8	ug/L	25.0		93.1	53-122	1.87	16	
Pentachlorophenol	27.5	8	ug/L	25.0		110	18-152	7.71	30	
Pronamide	21.6	8	ug/L	25.0		86.2	42-122	11.5	30	
Pentachloronitrobenzene (PCNB)	23.9	8	ug/L	25.0		95.6	50-128	0.292	18	
Phenanthrene	24.2	8	ug/L	25.0		96.9	59-131	0.746	16	
Anthracene	23.7	8	ug/L	25.0		94.8	59-127	7.16	16	
Di-n-butyl Phthalate	26.5	8	ug/L	25.0		106	64-148	1.67	30	
Fluoranthene	25.8	8	ug/L	25.0		103	62-132	0.735	16	
Isodrin	21.9	8	ug/L	25.0		87.7	46-130	6.10	29	

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0906 - 3520C BNA Cont Liq - EPA 8270C										
LCS Dup (1HD0906-BSD1)			Prepared: 04/15/24 13:45 Analyzed: 04/29/24 17:03							
Chlorobenzilate	22.1	8	ug/L	25.0		88.4	48-150	0.811	30	
Pyrene	24.5	8	ug/L	25.0		98.1	58-135	7.38	18	
p-(Dimethylamino)azobenzene	21.0	8	ug/L	100		21.0	28-146	22.1	30	QS-03
Butyl Benzyl Phthalate	24.1	8	ug/L	25.0		96.2	52-150	0.415	30	
Benzo(a)anthracene	24.0	8	ug/L	25.0		95.8	58-131	1.29	30	
Chrysene	25.0	8	ug/L	25.0		100	59-131	1.35	30	
Bis(2-Ethylhexyl) Phthalate	28.6	6	ug/L	25.0		114	33-184	8.08	30	
2-Acetylaminofluorene	54.9	8	ug/L	100		54.9	47-166	5.23	30	
Di-n-octyl Phthalate	29.3	8	ug/L	25.0		117	48-162	0.985	30	
Benzo(b)Fluoranthene	28.3	8	ug/L	25.0		113	50-146	2.34	30	
7,12-Dimethylbenz [a] anthracene	21.2	8	ug/L	25.0		84.7	22-155	3.61	30	
Benzo(k)Fluoranthene	28.6	8	ug/L	25.0		114	54-144	5.27	30	
Benzo(a)Pyrene	24.3	8	ug/L	25.0		97.4	39-148	9.11	30	
3-Methylcholanthrene	19.9	8	ug/L	25.0		79.6	34-118	53.2	30	QR-02
Dibenzo(a,h)anthracene	25.6	8	ug/L	25.0		103	46-153	7.58	30	
Indeno(1,2,3-cd)Pyrene	25.3	8	ug/L	25.0		101	48-152	5.79	30	
Benzo(g,h,i)perylene	25.3	8	ug/L	25.0		101	47-161	3.31	30	
Surrogate: 2-Fluorophenol	*22.4*		ug/L	*29.6*		*75.8*	*24-136*			
Surrogate: Phenol-d6	*24.6*		ug/L	*30.5*		*80.6*	*15-140*			
Surrogate: Nitrobenzene-d5	*26.8*		ug/L	*30.0*		*89.2*	*38-115*			
Surrogate: 2-Fluorobiphenyl	*23.8*		ug/L	*28.8*		*82.6*	*33-110*			
Surrogate: 2,4,6-Tribromophenol	*30.2*		ug/L	*29.7*		*102*	*15-139*			
Surrogate: Terphenyl-dl4	*30.0*		ug/L	*28.8*		*104*	*30-142*			

Determination of Organophosphorus Insecticides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0937 - 3510C NP/OC Sep Fnl - EPA 8141										
Blank (1HD0937-BLK1)			Prepared: 04/15/24 16:44 Analyzed: 04/18/24 19:18							
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							
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	*ND*		ug/L	*8.34*			*38-122*			*A-01*
LCS (1HD0937-BS1)			Prepared: 04/15/24 16:44 Analyzed: 04/19/24 00:08							
O,O,O-Triethyl phosphorothioate	3.86	0.4	ug/L	4.02		95.8	42-115			

Determination of Organophosphorus Insecticides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0937 - 3510C NP/OC Sep Fnl - EPA 8141										
LCS (1HD0937-BS1)				Prepared: 04/15/24 16:44 Analyzed: 04/19/24 00:08						
Thionazin	3.98	0.4	ug/L	4.03		98.8	28-118			
Phorate	3.88	0.4	ug/L	4.03		96.1	18-159			
Dimethoate	5.05	0.4	ug/L	4.03		125	43-155			
Disulfoton	3.65	0.4	ug/L	4.03		90.6	37-126			
Methyl Parathion	3.96	0.4	ug/L	4.04		98.0	28-145			
Parathion	3.62	0.4	ug/L	4.00		90.6	52-121			
Famphur	4.53	0.4	ug/L	4.02		113	44-144			
Surrogate: 2-Nitro-m-xylene	*7.84*		ug/L	*8.34*		*94.0*	*38-122*			
LCS Dup (1HD0937-BSD1)				Prepared: 04/15/24 16:44 Analyzed: 04/19/24 01:06						
O,O,O-Triethyl phosphorothioate	3.79	0.4	ug/L	4.02		94.2	42-115	1.70	30	
Thionazin	4.02	0.4	ug/L	4.03		99.5	28-118	0.750	30	
Phorate	3.86	0.4	ug/L	4.03		95.7	18-159	0.388	30	
Dimethoate	4.68	0.4	ug/L	4.03		116	43-155	7.61	22	
Disulfoton	3.88	0.4	ug/L	4.03		96.3	37-126	6.11	30	
Methyl Parathion	4.01	0.4	ug/L	4.04		99.3	28-145	1.25	28	
Parathion	3.72	0.4	ug/L	4.00		92.9	52-121	2.45	26	
Famphur	4.30	0.4	ug/L	4.02		107	44-144	5.21	28	
Surrogate: 2-Nitro-m-xylene	*7.68*		ug/L	*8.34*		*92.0*	*38-122*			

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0942 - EPA 8151A - EPA 8151A										
Blank (1HD0942-BLK1)				Prepared: 04/15/24 17:31 Analyzed: 04/30/24 09:58						
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	*1.96*		ug/L	*2.02*		*96.8*	*31-116*			
LCS (1HD0942-BS1)				Prepared: 04/15/24 17:31 Analyzed: 04/30/24 10:31						
2,4-D	<2.0	2.0	ug/L	1.15		87.0	16-161			
2,4,5-TP (Silvex)	0.54	0.5	ug/L	0.575		94.8	35-141			
2,4,5-T	0.70	0.5	ug/L	0.575		121	54-149			
Dinoseb	0.74	0.5	ug/L	1.15		63.9	10-133			
Surrogate: 2,5-Dichlorobenzoic Acid	*1.92*		ug/L	*2.02*		*95.3*	*31-116*			
LCS Dup (1HD0942-BSD1)				Prepared: 04/15/24 17:31 Analyzed: 04/30/24 16:12						
2,4-D	<2.0	2.0	ug/L	1.15		89.6	16-161	2.96	30	
2,4,5-TP (Silvex)	0.57	0.5	ug/L	0.575		99.1	35-141	4.48	30	

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0942 - EPA 8151A - EPA 8151A										
LCS Dup (1HD0942-BSD1)			Prepared: 04/15/24 17:31 Analyzed: 04/30/24 16:12							
2,4,5-T	0.70	0.5	ug/L	0.575		122	54-149	0.717	30	
Dinoseb	<0.5	0.5	ug/L	1.15		31.3	10-133	68.5	30	QR-02
Surrogate: 2,5-Dichlorobenzoic Acid	*2.04*		ug/L	*2.02*		*101*	*31-116*			

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0934 - 3510C NP/OC Sep Fnl - EPA 8081										
Blank (1HD0934-BLK1)			Prepared: 04/15/24 16:43 Analyzed: 04/17/24 17:02							
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							
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	*0.521*		ug/L	*0.600*		*86.8*	*10-121*			
LCS (1HD0934-BS1)			Prepared: 04/15/24 16:43 Analyzed: 04/17/24 17:17							
Alpha-BHC	0.236	0.05	ug/L	0.250		94.5	33-123			
Gamma-BHC [Lindane]	0.228	0.05	ug/L	0.250		91.1	34-120			
Beta-BHC	0.225	0.05	ug/L	0.250		89.9	33-125			
Heptachlor	0.255	0.05	ug/L	0.250		102	32-117			
Delta-BHC	0.268	0.05	ug/L	0.250		107	24-140			
Aldrin	0.207	0.05	ug/L	0.250		82.7	29-122			
Heptachlor Epoxide	0.222	0.05	ug/L	0.250		88.6	37-137			
Endosulfan I	0.239	0.05	ug/L	0.250		95.6	27-141			
4,4`-DDE	0.227	0.05	ug/L	0.250		90.6	38-147			

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0934 - 3510C NP/OC Sep Fnl - EPA 8081										
LCS (1HD0934-BS1)				Prepared: 04/15/24 16:43 Analyzed: 04/17/24 17:17						
Dieldrin	0.217	0.05	ug/L	0.250		86.8	32-137			
Endrin	0.320	0.05	ug/L	0.250		128	25-142			
4,4`-DDD	0.227	0.05	ug/L	0.250		90.8	43-146			
Endosulfan II	0.238	0.05	ug/L	0.250		95.3	36-140			
4,4`-DDT	0.296	0.05	ug/L	0.250		118	39-140			
Endrin Aldehyde	0.236	0.05	ug/L	0.250		94.3	17-150			
Endosulfan Sulfate	0.246	0.05	ug/L	0.250		98.5	41-135			
Methoxychlor	0.337	0.05	ug/L	0.250		135	40-148			
Surrogate: Tetrachloro-m-xylene	*0.545*		ug/L	*0.600*		*90.9*	*10-121*			
LCS Dup (1HD0934-BSD1)				Prepared: 04/15/24 16:43 Analyzed: 04/17/24 17:32						
Alpha-BHC	0.243	0.05	ug/L	0.250		97.0	33-123	2.60	30	
Gamma-BHC [Lindane]	0.235	0.05	ug/L	0.250		94.1	34-120	3.24	30	
Beta-BHC	0.233	0.05	ug/L	0.250		93.4	33-125	3.79	30	
Heptachlor	0.256	0.05	ug/L	0.250		102	32-117	0.339	30	
Delta-BHC	0.271	0.05	ug/L	0.250		109	24-140	1.26	30	
Aldrin	0.209	0.05	ug/L	0.250		83.5	29-122	0.977	30	
Heptachlor Epoxide	0.229	0.05	ug/L	0.250		91.5	37-137	3.19	30	
Endosulfan I	0.243	0.05	ug/L	0.250		97.2	27-141	1.65	30	
4,4`-DDE	0.229	0.05	ug/L	0.250		91.6	38-147	1.03	30	
Dieldrin	0.222	0.05	ug/L	0.250		88.8	32-137	2.27	30	
Endrin	0.324	0.05	ug/L	0.250		130	25-142	1.32	30	
4,4`-DDD	0.234	0.05	ug/L	0.250		93.6	43-146	3.05	30	
Endosulfan II	0.241	0.05	ug/L	0.250		96.5	36-140	1.25	30	
4,4`-DDT	0.302	0.05	ug/L	0.250		121	39-140	2.24	30	
Endrin Aldehyde	0.233	0.05	ug/L	0.250		93.4	17-150	0.919	30	
Endosulfan Sulfate	0.249	0.05	ug/L	0.250		99.6	41-135	1.16	30	
Methoxychlor	0.342	0.05	ug/L	0.250		137	40-148	1.50	30	
Surrogate: Tetrachloro-m-xylene	*0.534*		ug/L	*0.600*		*89.0*	*10-121*			

Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0935 - 3510C NP/OC Sep Fnl - EPA 8082										
Blank (1HD0935-BLK1)				Prepared: 04/15/24 16:43 Analyzed: 04/17/24 17:02						
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							

Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0935 - 3510C NP/OC Sep Fnl - EPA 8082										
Blank (1HD0935-BLK1)			Prepared: 04/15/24 16:43 Analyzed: 04/17/24 17:02							
Arochlor 1254	<0.20	0.20	ug/L							
Arochlor 1260	<0.20	0.20	ug/L							
Surrogate: Tetrachloro-m-xylene	*0.561*		ug/L	*0.600*		*93.4*	*38-121*			
Surrogate: Decachlorobiphenyl	*0.274*		ug/L	*0.600*		*45.7*	*25-119*			
LCS (1HD0935-BS1)			Prepared: 04/15/24 16:43 Analyzed: 04/17/24 17:46							
Arochlor 1016	2.014	0.20	ug/L	2.60		77.5	25-126			
Arochlor 1260	2.665	0.20	ug/L	2.60		102	29-142			
Surrogate: Tetrachloro-m-xylene	*0.571*		ug/L	*0.600*		*95.2*	*38-121*			
Surrogate: Decachlorobiphenyl	*0.296*		ug/L	*0.600*		*49.4*	*25-119*			
LCS Dup (1HD0935-BSD1)			Prepared: 04/15/24 16:43 Analyzed: 04/17/24 18:01							
Arochlor 1016	1.954	0.20	ug/L	2.60		75.2	25-126	3.02	30	
Arochlor 1260	2.565	0.20	ug/L	2.60		98.6	29-142	3.82	30	
Surrogate: Tetrachloro-m-xylene	*0.534*		ug/L	*0.600*		*89.1*	*38-121*			
Surrogate: Decachlorobiphenyl	*0.322*		ug/L	*0.600*		*53.7*	*25-119*			

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0682 - General Prep HPLC/IC - TIMBERLINE										
Blank (1HD0682-BLK1)			Prepared: 04/11/24 07:16 Analyzed: 04/15/24 08:39							
Nitrogen, Ammonia	<0.10	0.10	mg/L							
LCS (1HD0682-BS1)			Prepared: 04/11/24 07:16 Analyzed: 04/15/24 08:40							
Nitrogen, Ammonia	4.87	0.10	mg/L	5.00		97.4	90-114			
Matrix Spike (1HD0682-MS1)	**Source: 1HD0759-03**		Prepared: 04/11/24 07:16 Analyzed: 04/15/24 08:41							
Nitrogen, Ammonia	4.93	0.10	mg/L	5.00	0.308	92.5	84-115			
Matrix Spike Dup (1HD0682-MSD1)	**Source: 1HD0759-03**		Prepared: 04/11/24 07:16 Analyzed: 04/15/24 08:43							
Nitrogen, Ammonia	4.98	0.10	mg/L	5.00	0.308	93.5	84-115	1.02	20	
Batch 1HD0707 - General Prep Micro - SM 5210 B										
Blank (1HD0707-BLK1)			Prepared: 04/11/24 09:08 Analyzed: 04/11/24 09:57							
BOD (5 day)	<2	2	mg/L							B-06
Duplicate (1HD0707-DUP1)	**Source: 1HD0791-03**		Prepared: 04/11/24 09:08 Analyzed: 04/11/24 10:58							
BOD (5 day)	190	60	mg/L		196			2.72	29	
Reference (1HD0707-SRM1)			Prepared: 04/11/24 09:08 Analyzed: 04/11/24 10:03							
BOD (5 day)	203	100	mg/L	198		103	84.6-115.4			

Determination of Conventional Chemistry Parameters	Result		RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0714 - Wet Chem Preparation - EPA 376.2											
Blank (1HD0714-BLK1)				Prepared: 04/11/24 09:22 Analyzed: 04/15/24 17:17							
Sulfide, total	<0.10		0.10	mg/L							
LCS (1HD0714-BS1)				Prepared: 04/11/24 09:22 Analyzed: 04/15/24 17:17							
Sulfide, total	0.223		0.10	mg/L	0.31		70.8	59-110			
Matrix Spike (1HD0714-MS1)		**Source: 1HD0788-02**		Prepared: 04/11/24 09:22 Analyzed: 04/15/24 17:17							
Sulfide, total	0.604		0.30	mg/L	0.94	ND	64.0	50-150			
Matrix Spike Dup (1HD0714-MSD1)		**Source: 1HD0788-02**		Prepared: 04/11/24 09:22 Analyzed: 04/15/24 17:17							
Sulfide, total	0.855		0.30	mg/L	0.94	ND	90.5	50-150	34.4	30	QR-02
Batch 1HD0769 - Wet Chem Preparation - USGS I-3765-85											
Blank (1HD0769-BLK1)				Prepared: 04/11/24 16:56 Analyzed: 04/12/24 14:35							
Total Suspended Solids (TSS)	<1		1	mg/L							
LCS (1HD0769-BS1)				Prepared: 04/11/24 16:56 Analyzed: 04/12/24 14:35							
Total Suspended Solids (TSS)	13.8		1	mg/L	15.0		92.0	74-114			
Duplicate (1HD0769-DUP1)		**Source: 1HD0663-01**		Prepared: 04/11/24 16:56 Analyzed: 04/12/24 14:35							
Total Suspended Solids (TSS)	627		1	mg/L		670			6.68	30	
Batch 1HD0774 - Wet Chem Preparation - 2320B											
Blank (1HD0774-BLK1)				Prepared: 04/12/24 08:23 Analyzed: 04/12/24 10:10							
Alkalinity, as CaCO3	<10		10	mg/L							
LCS (1HD0774-BS1)				Prepared: 04/12/24 08:23 Analyzed: 04/12/24 10:10							
Alkalinity, as CaCO3	224		10	mg/L	235		95.3	88-114			
Matrix Spike (1HD0774-MS1)		**Source: 1HD0791-04**		Prepared: 04/12/24 08:23 Analyzed: 04/12/24 10:10							
Alkalinity, as CaCO3	339		10	mg/L	235	127	90.3	74-122			
Matrix Spike Dup (1HD0774-MSD1)		**Source: 1HD0791-04**		Prepared: 04/12/24 08:23 Analyzed: 04/12/24 10:10							
Alkalinity, as CaCO3	335		10	mg/L	235	127	88.6	74-122	1.22	10	
Batch 1HD0812 - Wet Chem Preparation - SM 4500 H+ B											
Duplicate (1HD0812-DUP1)		**Source: 1HD0885-02**		Prepared: 04/12/24 13:34 Analyzed: 04/12/24 13:42							
pH	8.3		0.5	pH		8.3			0.0484	10	
Reference (1HD0812-SRM1)				Prepared: 04/12/24 13:34 Analyzed: 04/12/24 13:42							
pH	7.0		0.5	pH	7.00		100	90-110			
Reference (1HD0812-SRM2)				Prepared: 04/12/24 13:34 Analyzed: 04/12/24 13:42							
pH	7.1		0.5	pH	7.00		101	90-110			
Batch 1HD0855 - Wet Chem Preparation - USGS I-1750-85											
Blank (1HD0855-BLK1)				Prepared: 04/15/24 07:57 Analyzed: 04/15/24 09:20							
Total Dissolved Solids (TDS)	<5		5	mg/L							

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0855 - Wet Chem Preparation - USGS I-1750-85										
LCS (1HD0855-BS1)			Prepared: 04/15/24 07:57 Analyzed: 04/15/24 09:20							
Total Dissolved Solids (TDS)	99	5	mg/L	100		99.4	71-114			
Duplicate (1HD0855-DUP1)		**Source: 1HD0814-08**	Prepared: 04/15/24 07:57 Analyzed: 04/15/24 09:20							
Total Dissolved Solids (TDS)	903	5	mg/L		908			0.589	30	
Batch 1HD1205 - Wet Chem Preparation - EPA 9010B										
Blank (1HD1205-BLK1)			Prepared: 04/18/24 17:16 Analyzed: 04/21/24 12:10							
Cyanide, total	<0.005	0.005	mg/L							
LCS (1HD1205-BS1)			Prepared: 04/18/24 17:16 Analyzed: 04/21/24 12:10							
Cyanide, total	0.0307	0.005	mg/L	0.0300		102	66-136			
Matrix Spike (1HD1205-MS1)		**Source: 1HD0814-02**	Prepared: 04/18/24 17:16 Analyzed: 04/21/24 12:10							
Cyanide, total	0.0344	0.005	mg/L	0.0300	ND	115	59-153			
Matrix Spike Dup (1HD1205-MSD1)		**Source: 1HD0814-02**	Prepared: 04/18/24 17:16 Analyzed: 04/21/24 12:10							
Cyanide, total	0.0352	0.005	mg/L	0.0300	ND	117	59-153	2.26	30	
Batch 1HD1277 - Wet Chem Preparation - EPA 410.4										
Blank (1HD1277-BLK1)			Prepared: 04/22/24 08:29 Analyzed: 04/22/24 15:13							
COD, total	<54	54	mg/L							
LCS (1HD1277-BS1)			Prepared: 04/22/24 08:29 Analyzed: 04/22/24 15:13							
COD, total	162	54	mg/L	150		108	90-110			
Matrix Spike (1HD1277-MS1)		**Source: 3HD0063-04**	Prepared: 04/22/24 08:29 Analyzed: 04/22/24 15:13							
COD, total	464	108	mg/L	300	69.8	131	90-110			QM-13
Matrix Spike Dup (1HD1277-MSD1)		**Source: 3HD0063-04**	Prepared: 04/22/24 08:29 Analyzed: 04/22/24 15:13							
COD, total	437	108	mg/L	300	69.8	122	90-110	6.00	10	QM-13

Determination of Inorganic Anions	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1365 - General Prep HPLC/IC - EPA 9056										
Blank (1HD1365-BLK1)			Prepared: 04/22/24 00:00 Analyzed: 04/22/24 14:50							
Chloride	<1.0	1.0	mg/L							
Sulfate	<1.0	1.0	mg/L							
Blank (1HD1365-BLK2)			Prepared: 04/22/24 00:00 Analyzed: 04/22/24 20:17							
Chloride	<1.0	1.0	mg/L							
Sulfate	<1.0	1.0	mg/L							
LCS (1HD1365-BS1)			Prepared: 04/22/24 00:00 Analyzed: 04/22/24 15:26							
Chloride	15.16	1.0	mg/L	15.3		99.3	80-120			
Sulfate	33.08	1.0	mg/L	33.8		97.7	80-120			
LCS Dup (1HD1365-BSD1)			Prepared: 04/22/24 00:00 Analyzed: 04/22/24 15:44							

Determination of Inorganic Anions	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1365 - General Prep HPLC/IC - EPA 9056										
LCS Dup (1HD1365-BSD1)				Prepared: 04/22/24 00:00 Analyzed: 04/22/24 15:44						
Chloride	15.22	1.0	mg/L	15.3		99.7	80-120	0.382	10	
Sulfate	33.58	1.0	mg/L	33.8		99.2	80-120	1.48	10	
Matrix Spike (1HD1365-MS1)		**Source: 1HD1092-01**		Prepared: 04/22/24 00:00 Analyzed: 04/22/24 18:09						
Chloride	452.4	10.0	mg/L	153	293.5	104	81-116			
Sulfate	901.2	10.0	mg/L	338	544.1	105	87-113			
Matrix Spike Dup (1HD1365-MSD1)		**Source: 1HD1092-01**		Prepared: 04/22/24 00:00 Analyzed: 04/22/24 18:28						
Chloride	449.9	10.0	mg/L	153	293.5	102	81-116	0.556	10	
Sulfate	899.0	10.0	mg/L	338	544.1	105	87-113	0.244	10	

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0661 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Blank (1HD0661-BLK1)				Prepared: 04/11/24 08:24 Analyzed: 04/11/24 21:59						
Antimony, total	<0.0020	0.0020	mg/L							
Arsenic, total	<0.0040	0.0040	mg/L							
Barium, total	<0.0040	0.0040	mg/L							
Beryllium, total	<0.0040	0.0040	mg/L							
Cadmium, total	<0.0008	0.0008	mg/L							
Chromium, total	<0.0080	0.0080	mg/L							
Cobalt, total	<0.0004	0.0004	mg/L							
Copper, total	<0.0040	0.0040	mg/L							
Lead, total	<0.0040	0.0040	mg/L							
Nickel, total	<0.0040	0.0040	mg/L							
Selenium, total	<0.0040	0.0040	mg/L							
Silver, total	<0.0040	0.0040	mg/L							
Thallium, total	<0.0020	0.0020	mg/L							
Tin, total	<0.0200	0.0200	mg/L							
Vanadium, total	<0.0200	0.0200	mg/L							
Zinc, total	<0.0200	0.0200	mg/L							
LCS (1HD0661-BS1)				Prepared: 04/11/24 08:24 Analyzed: 04/11/24 22:05						
Antimony, total	0.0935	0.0020	mg/L	0.100		93.5	80-120			
Arsenic, total	0.0951	0.0040	mg/L	0.100		95.1	80-120			
Barium, total	0.106	0.0040	mg/L	0.100		106	80-120			
Beryllium, total	0.0954	0.0040	mg/L	0.100		95.4	80-120			
Cadmium, total	0.0931	0.0008	mg/L	0.100		93.1	80-120			
Chromium, total	0.0957	0.0080	mg/L	0.100		95.7	80-120			
Cobalt, total	0.0953	0.0004	mg/L	0.100		95.3	80-120			
Copper, total	0.0939	0.0040	mg/L	0.100		93.9	80-120			
Lead, total	0.0970	0.0040	mg/L	0.100		97.0	80-120			
Nickel, total	0.0935	0.0040	mg/L	0.100		93.5	80-120			
Selenium, total	0.0943	0.0040	mg/L	0.100		94.3	80-120			
Silver, total	0.0986	0.0040	mg/L	0.100		98.6	80-120			

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0661 - EPA 3005A Total Recoverable Metals - EPA 6020A										
LCS (1HD0661-BS1)				Prepared: 04/11/24 08:24 Analyzed: 04/11/24 22:05						
Thallium, total	0.0966	0.0020	mg/L	0.100		96.6	80-120			
Tin, total	0.0977	0.0200	mg/L	0.100		97.7	80-120			
Vanadium, total	0.0972	0.0200	mg/L	0.100		97.2	80-120			
Zinc, total	0.0915	0.0200	mg/L	0.100		91.5	80-120			
Matrix Spike (1HD0661-MS1)		**Source: 1HD0814-01**		Prepared: 04/11/24 08:24 Analyzed: 04/11/24 22:30						
Antimony, total	0.0946	0.0020	mg/L	0.100	0.0009	93.6	75-125			
Arsenic, total	0.0970	0.0040	mg/L	0.100	0.0026	94.4	75-125			
Barium, total	0.356	0.0040	mg/L	0.100	0.247	109	75-125			
Beryllium, total	0.0950	0.0040	mg/L	0.100	ND	95.0	75-125			
Cadmium, total	0.0923	0.0008	mg/L	0.100	ND	92.3	75-125			
Chromium, total	0.0939	0.0080	mg/L	0.100	0.0007	93.2	75-125			
Cobalt, total	0.0952	0.0004	mg/L	0.100	ND	95.2	75-125			
Copper, total	0.0896	0.0040	mg/L	0.100	ND	89.6	75-125			
Lead, total	0.0940	0.0040	mg/L	0.100	ND	94.0	75-125			
Nickel, total	0.0915	0.0040	mg/L	0.100	ND	91.5	75-125			
Selenium, total	0.0888	0.0040	mg/L	0.100	ND	88.8	75-125			
Silver, total	0.0982	0.0040	mg/L	0.100	ND	98.2	75-125			
Thallium, total	0.0959	0.0020	mg/L	0.100	ND	95.9	75-125			
Tin, total	0.100	0.0200	mg/L	0.100	ND	100	75-125			
Vanadium, total	0.0998	0.0200	mg/L	0.100	ND	99.8	75-125			
Zinc, total	0.0941	0.0200	mg/L	0.100	ND	94.1	75-125			
Matrix Spike Dup (1HD0661-MSD1)		**Source: 1HD0814-01**		Prepared: 04/11/24 08:24 Analyzed: 04/12/24 11:01						
Antimony, total	0.0916	0.0020	mg/L	0.100	0.0009	90.7	75-125	3.19	20	
Arsenic, total	0.0914	0.0040	mg/L	0.100	0.0026	88.8	75-125	5.96	20	
Barium, total	0.323	0.0040	mg/L	0.100	0.247	75.5	75-125	9.83	20	
Beryllium, total	0.0946	0.0040	mg/L	0.100	ND	94.6	75-125	0.338	20	
Cadmium, total	0.0870	0.0008	mg/L	0.100	ND	87.0	75-125	5.90	20	
Chromium, total	0.0908	0.0080	mg/L	0.100	0.0007	90.1	75-125	3.41	20	
Cobalt, total	0.0871	0.0004	mg/L	0.100	ND	87.1	75-125	8.87	20	
Copper, total	0.0838	0.0040	mg/L	0.100	ND	83.8	75-125	6.68	20	
Lead, total	0.0879	0.0040	mg/L	0.100	ND	87.9	75-125	6.61	20	
Nickel, total	0.0855	0.0040	mg/L	0.100	ND	85.5	75-125	6.84	20	
Selenium, total	0.0801	0.0040	mg/L	0.100	ND	80.1	75-125	10.3	20	
Silver, total	0.0887	0.0040	mg/L	0.100	ND	88.7	75-125	10.2	20	
Thallium, total	0.0893	0.0020	mg/L	0.100	ND	89.3	75-125	7.12	20	
Tin, total	0.0923	0.0200	mg/L	0.100	ND	92.3	75-125	8.25	20	
Vanadium, total	0.0981	0.0200	mg/L	0.100	ND	98.1	75-125	1.80	20	
Zinc, total	0.0854	0.0200	mg/L	0.100	ND	85.4	75-125	9.71	20	
Post Spike (1HD0661-PS1)		**Source: 1HD0814-01**		Prepared: 04/11/24 08:24 Analyzed: 04/11/24 22:54						
Antimony, total	0.0775		mg/L	0.0800	0.0009	95.7	80-120			
Arsenic, total	0.0803		mg/L	0.0800	0.0026	97.2	80-120			
Barium, total	0.330		mg/L	0.0800	0.242	110	80-120			
Beryllium, total	0.0772		mg/L	0.0800	0.000005	96.4	80-120			

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0661 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Post Spike (1HD0661-PS1)	**Source: 1HD0814-01**		Prepared: 04/11/24 08:24 Analyzed: 04/11/24 22:54							
Cadmium, total	0.0731		mg/L	0.0800	0.00007	91.3	80-120			
Chromium, total	0.0763		mg/L	0.0800	0.0007	94.5	80-120			
Cobalt, total	0.0784		mg/L	0.0800	0.00003	97.9	80-120			
Copper, total	0.0745		mg/L	0.0800	0.0006	92.4	80-120			
Lead, total	0.0776		mg/L	0.0800	0.00003	96.9	80-120			
Nickel, total	0.0764		mg/L	0.0800	0.0002	95.1	80-120			
Selenium, total	0.0727		mg/L	0.0800	0.0004	90.3	80-120			
Silver, total	0.0804		mg/L	0.0800	0.0006	99.7	80-120			
Thallium, total	0.0791		mg/L	0.0800	0.00007	98.7	80-120			
Tin, total	0.0803		mg/L	0.0800	-0.0003	100	75-125			
Vanadium, total	0.0842		mg/L	0.0800	0.0073	96.1	80-120			
Zinc, total	0.0776		mg/L	0.0800	0.0058	89.8	80-120			
Batch 1HD0843 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Blank (1HD0843-BLK1)			Prepared: 04/12/24 16:25 Analyzed: 04/15/24 21:25							
Antimony, total	<0.0020	0.0020	mg/L							
Arsenic, total	<0.0040	0.0040	mg/L							
Barium, total	<0.0040	0.0040	mg/L							
Beryllium, total	<0.0040	0.0040	mg/L							
Cadmium, total	<0.0008	0.0008	mg/L							
Chromium, total	<0.0080	0.0080	mg/L							
Cobalt, total	<0.0004	0.0004	mg/L							
Copper, total	<0.0040	0.0040	mg/L							
Lead, total	<0.0040	0.0040	mg/L							
Nickel, total	<0.0040	0.0040	mg/L							
Selenium, total	<0.0040	0.0040	mg/L							
Silver, total	<0.0040	0.0040	mg/L							
Thallium, total	<0.0020	0.0020	mg/L							
Vanadium, total	<0.0200	0.0200	mg/L							
Zinc, total	<0.0200	0.0200	mg/L							
LCS (1HD0843-BS1)			Prepared: 04/12/24 16:25 Analyzed: 04/15/24 21:31							
Antimony, total	0.0958	0.0020	mg/L	0.100		95.8	80-120			
Arsenic, total	0.0968	0.0040	mg/L	0.100		96.8	80-120			
Barium, total	0.106	0.0040	mg/L	0.100		106	80-120			
Beryllium, total	0.0962	0.0040	mg/L	0.100		96.2	80-120			
Cadmium, total	0.0972	0.0008	mg/L	0.100		97.2	80-120			
Chromium, total	0.0940	0.0080	mg/L	0.100		94.0	80-120			
Cobalt, total	0.0973	0.0004	mg/L	0.100		97.3	80-120			
Copper, total	0.0970	0.0040	mg/L	0.100		97.0	80-120			
Lead, total	0.0980	0.0040	mg/L	0.100		98.0	80-120			
Nickel, total	0.0958	0.0040	mg/L	0.100		95.8	80-120			
Selenium, total	0.0983	0.0040	mg/L	0.100		98.3	80-120			
Silver, total	0.0971	0.0040	mg/L	0.100		97.1	80-120			

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0843 - EPA 3005A Total Recoverable Metals - EPA 6020A										
LCS (1HD0843-BS1)				Prepared: 04/12/24 16:25 Analyzed: 04/15/24 21:31						
Thallium, total	0.0969	0.0020	mg/L	0.100		96.9	80-120			
Vanadium, total	0.0976	0.0200	mg/L	0.100		97.6	80-120			
Zinc, total	0.101	0.0200	mg/L	0.100		101	80-120			
Matrix Spike (1HD0843-MS1)		**Source: 1HD0949-01**		Prepared: 04/12/24 16:25 Analyzed: 04/15/24 21:50						
Antimony, total	0.0944	0.0020	mg/L	0.100	ND	94.4	75-125			
Arsenic, total	0.0990	0.0040	mg/L	0.100	0.0020	97.0	75-125			
Barium, total	0.195	0.0040	mg/L	0.100	0.0868	108	75-125			
Beryllium, total	0.0897	0.0040	mg/L	0.100	ND	89.7	75-125			
Cadmium, total	0.0935	0.0008	mg/L	0.100	ND	93.5	75-125			
Chromium, total	0.0908	0.0080	mg/L	0.100	0.0009	89.9	75-125			
Cobalt, total	0.0983	0.0004	mg/L	0.100	ND	98.3	75-125			
Copper, total	0.0931	0.0040	mg/L	0.100	ND	93.1	75-125			
Lead, total	0.0923	0.0040	mg/L	0.100	ND	92.3	75-125			
Nickel, total	0.0947	0.0040	mg/L	0.100	ND	94.7	75-125			
Selenium, total	0.0976	0.0040	mg/L	0.100	ND	97.6	75-125			
Silver, total	0.0940	0.0040	mg/L	0.100	ND	94.0	75-125			
Thallium, total	0.0933	0.0020	mg/L	0.100	ND	93.3	75-125			
Vanadium, total	0.100	0.0200	mg/L	0.100	ND	100	75-125			
Zinc, total	0.0996	0.0200	mg/L	0.100	ND	99.6	75-125			
Matrix Spike Dup (1HD0843-MSD1)		**Source: 1HD0949-01**		Prepared: 04/12/24 16:25 Analyzed: 04/15/24 21:56						
Antimony, total	0.0968	0.0020	mg/L	0.100	ND	96.8	75-125	2.51	20	
Arsenic, total	0.0979	0.0040	mg/L	0.100	0.0020	95.9	75-125	1.11	20	
Barium, total	0.199	0.0040	mg/L	0.100	0.0868	112	75-125	2.19	20	
Beryllium, total	0.0947	0.0040	mg/L	0.100	ND	94.7	75-125	5.48	20	
Cadmium, total	0.0952	0.0008	mg/L	0.100	ND	95.2	75-125	1.85	20	
Chromium, total	0.0921	0.0080	mg/L	0.100	0.0009	91.3	75-125	1.44	20	
Cobalt, total	0.0980	0.0004	mg/L	0.100	ND	98.0	75-125	0.352	20	
Copper, total	0.0924	0.0040	mg/L	0.100	ND	92.4	75-125	0.755	20	
Lead, total	0.0954	0.0040	mg/L	0.100	ND	95.4	75-125	3.23	20	
Nickel, total	0.0944	0.0040	mg/L	0.100	ND	94.4	75-125	0.309	20	
Selenium, total	0.0936	0.0040	mg/L	0.100	ND	93.6	75-125	4.23	20	
Silver, total	0.0967	0.0040	mg/L	0.100	ND	96.7	75-125	2.82	20	
Thallium, total	0.0959	0.0020	mg/L	0.100	ND	95.9	75-125	2.80	20	
Vanadium, total	0.102	0.0200	mg/L	0.100	ND	102	75-125	1.78	20	
Zinc, total	0.0958	0.0200	mg/L	0.100	ND	95.8	75-125	3.91	20	
Post Spike (1HD0843-PS1)		**Source: 1HD0949-01**		Prepared: 04/12/24 16:25 Analyzed: 04/15/24 22:02						
Antimony, total	0.0766		mg/L	0.0800	0.00005	95.6	80-120			
Arsenic, total	0.0787		mg/L	0.0800	0.0020	95.8	80-120			
Barium, total	0.171		mg/L	0.0800	0.0851	108	80-120			
Beryllium, total	0.0763		mg/L	0.0800	0.000003	95.3	80-120			
Cadmium, total	0.0757		mg/L	0.0800	-0.0001	94.6	80-120			
Chromium, total	0.0745		mg/L	0.0800	0.0008	92.1	80-120			
Cobalt, total	0.0784		mg/L	0.0800	0.00006	97.9	80-120			

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD0843 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Post Spike (1HD0843-PS1)		**Source: 1HD0949-01**	Prepared: 04/12/24 16:25 Analyzed: 04/15/24 22:02							
Copper, total	0.0742		mg/L	0.0800	0.0005	92.1	80-120			
Lead, total	0.0763		mg/L	0.0800	0.00009	95.3	80-120			
Nickel, total	0.0759		mg/L	0.0800	0.0002	94.6	80-120			
Selenium, total	0.0763		mg/L	0.0800	0.0002	95.1	80-120			
Silver, total	0.0772		mg/L	0.0800	0.0002	96.2	80-120			
Thallium, total	0.0773		mg/L	0.0800	-0.000007	96.6	80-120			
Vanadium, total	0.0851		mg/L	0.0800	0.0098	94.1	80-120			
Zinc, total	0.0747		mg/L	0.0800	-0.0012	93.4	80-120			
Batch 1HD0989 - EPA 7470A Hg Water - EPA 7470A										
Blank (1HD0989-BLK1)			Prepared: 04/16/24 13:38 Analyzed: 04/17/24 15:13							
Mercury, total	<0.00050	0.00050	mg/L							
LCS (1HD0989-BS1)			Prepared: 04/16/24 13:38 Analyzed: 04/17/24 15:15							
Mercury, total	0.00250	0.00050	mg/L	0.00250		99.9	80-120			
Matrix Spike (1HD0989-MS1)		**Source: 1HD0701-06**	Prepared: 04/16/24 13:38 Analyzed: 04/17/24 15:19							
Mercury, total	0.00254	0.00050	mg/L	0.00250	ND	101	75-125			
Matrix Spike Dup (1HD0989-MSD1)		**Source: 1HD0701-06**	Prepared: 04/16/24 13:38 Analyzed: 04/17/24 15:22							
Mercury, total	0.00246	0.00050	mg/L	0.00250	ND	98.3	75-125	3.12	20	

Definitions

A-01: Surrogate not added to batch blank.
B-06: Unseeded Blank equals .45mg/L
I-02: This result was analyzed outside of the EPA recommended holding time.
I-03: Analyte required to be analyzed within 15 minutes of sampling. Analysis performed upon receipt of sample at laboratory.
QM-13: The spike recovery was outside acceptance limits for the MS and/or MSD. Batch accepted based on acceptable initial and continuing calibration results.
QM-18: LCS/LCSD were analyzed in place of MS/MSD due to instrument malfunction.
QR-02: The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QS-02: The spike recovery for this QC sample exceeded established acceptance limits. However, all samples were below the reporting and/or regulatory limit so the data is acceptable.
QS-03: The blank spike recovery was below established acceptance limits.
RL: Reporting Limit
RPD: Relative Percent Difference
S-GC: Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

Cooler Receipt Log

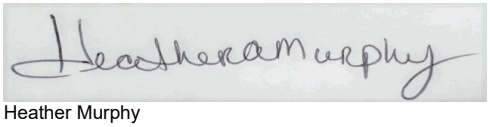
Cooler ID: Default Cooler Temp: 0.6°C

Cooler Inspection Checklist

Custody Seals	No	Containers Intact	Yes
COC/Labels Agree	Yes	Preservation Confirmed	No
Received On Ice	Yes		

Report Comments

Reviewed and Approved By:



Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
05/31/24 11:22

CHAIN OF

Keystone LABORATORIES
A Microbac Company

600 East 17th Street
Newton, IA 50208
641-792-8451

1HD0814

HLW Engineering
PM: Heather Murphy

www.keystonelabs.com

SITE INFORMATION

Sampler: Todd Whipple

Project: Jones Co. Landfill - New Regs

REPORT TO

Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

INVOICE TO

Karl Taylor
Jones County Solid Waste Management Co
PO Box 235
Anamosa, IA 52205

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY

Work Order 1HD0814
Temperature 0.6
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 (up)	Water	GRAB	4/8/24	11:22	7	lndfill-app1-voc-group lndfll-app1-metals-6020	01
-001	MW-6	Water	GRAB	4/8/24	11:50	17	lndfll-app2-inorg-6020 lndfll-app2-org	02
-001	MW-11	Water	GRAB	4/8/24	11:11	7	lndfill-app1-voc-group lndfll-app1-metals-6020	03
-001	MW-15	Water	GRAB	4/8/24	13:42	12	alk-caco3-2320 lndfill-app1-voc-group lndfll-app1-metals-6020 methane-astm-d1946 ph-4500	04
-001	MW-16	Water	GRAB	4/8/24	13:31	7	lndfill-app1-voc-group lndfll-app1-metals-6020	05
-001	MW-20	Water	GRAB	4/8/24	12:31	7	lndfill-app1-voc-group lndfll-app1-metals-6020	06
-001	MW-22	Water	GRAB	4/8/24	13:00	7	lndfill-app1-voc-group lndfll-app1-metals-6020	07

Todd Whipple 4/10/24
Relinquished By Date/Time

Received By Date/Time

Relinquished By Date/Time

Maher 4-10-24 10:08
Received for Lab By Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

CHAIN OF C

Keystone LABORATORIES
A Microbac Company
600 East 17th Street S
Newton, IA 50208
641-792-9451

1HD0814

HLW Engineering
PM: Heather Murphy

www.keystonelabs.com

SITE INFORMATION

Sampler: Todd Whipple

Project: Jones Co. Landfill - New Regs

REPORT TO

Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

INVOICE TO

Karl Taylor
Jones County Solid Waste Management Co
PO Box 235
Anamosa, IA 52205

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY

Work Order 1HD0814
Temperature 0.6
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	LPZ-6	Water	GRAB	4/8/24	14:12	15	alk-caco3-2320, as-t-6020, bod-5210 *, cl-9056-w, cod-t-410.4, co-t-6020, lndfill-app1-voc-group, methane-astm-d1946, nh3-timberline, ph-4500, so4-9056-w, tds-i-1750-85, tss-i-3765-85	08
-001	Duplicate	Water	GRAB	4/8/24	✓	7	lndfill-app1-voc-group, lndfll-app1-metals-6020	09

Todd Whipple 4/10/24
Relinquished By Date/Time

Received By Date/Time

Relinquished By Date/Time

Maher 4/10/24 10:08
Received for Lab By Date/Time

Remarks: * BOD5 @ LPZ-6 - please run if sample is outside of hold time.

Original - Lab Copy Yellow - Sampler Copy

Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HF1091

Project Description

Jones Co. Landfill - New Regs

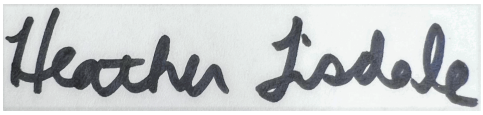
For:

Todd Whipple

HLW Engineering

PO Box 314

Story City, IA 50248



Heather Tisdale

Customer Relationship Specialist

Thursday, June 20, 2024

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®

Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HF1091

HLW Engineering

Todd Whipple
PO Box 314
Story City, IA 50248

Project Name: Jones Co. Landfill - New Regs

Project / PO Number: N/A
Received: 06/14/2024
Reported: 06/20/2024

Sample Summary Report

Sample Name	Laboratory ID	Client Matrix	Sample Type	Sample Begin	Sample Taken	Lab Received
MW-16	1HF1091-01	Aqueous	GRAB		06/13/24 14:02	06/14/24 10:58

Analytical Testing Parameters

Client Sample ID:	MW-16		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HF1091-01	**Collection Date:**	06/13/2024 14:02

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 200.7								
Zinc, total	**0.020**	0.020	mg/L	1		06/17/24 1522	06/18/24 2346	JAR

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 200.7	1HF0870	1HF0870-BLK1	
		1HF0870-BS1	
		1HF0870-MS1	1HF0979-01
		1HF0870-MSD1	1HF0979-01
		1HF0870-PS1	1HF0979-01
		1HF1091-01	MW-16

Batch Quality Control Summary: Microbac Laboratories, Inc., Newton

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HF0870 - EPA 200.2 Total ICP-OES (200.7) - EPA 200.7										
Blank (1HF0870-BLK1)			Prepared: 06/17/24 15:22 Analyzed: 06/18/24 20:40							
Zinc, total	<0.020	0.020	mg/L							
LCS (1HF0870-BS1)			Prepared: 06/17/24 15:22 Analyzed: 06/18/24 20:47							
Zinc, total	0.205	0.020	mg/L	0.200		103	85-115			
Matrix Spike (1HF0870-MS1)		**Source: 1HF0979-01**	Prepared: 06/17/24 15:22 Analyzed: 06/18/24 21:17							
Zinc, total	0.579	0.020	mg/L	0.200	0.363	108	70-130			
Matrix Spike Dup (1HF0870-MSD1)		**Source: 1HF0979-01**	Prepared: 06/17/24 15:22 Analyzed: 06/18/24 21:26							
Zinc, total	0.608	0.020	mg/L	0.200	0.363	122	70-130	4.92	20	
Post Spike (1HF0870-PS1)		**Source: 1HF0979-01**	Prepared: 06/17/24 15:22 Analyzed: 06/18/24 21:46							
Zinc, total	1.25		mg/L	0.800	0.363	111	85-115			

Definitions

RL: Reporting Limit
RPD: Relative Percent Difference

Cooler Receipt Log

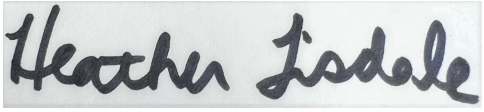
Cooler ID: Default Cooler Temp: 0.0°C

Cooler Inspection Checklist

Custody Seals	No	Containers Intact	Yes
COC/Labels Agree	Yes	Preservation Confirmed	No
Received On Ice	Yes		

Report Comments

Reviewed and Approved By:



Heather Tisdale
Customer Relationship Specialist
06/20/24 15:25

CHAIN OF CUSTODY RECORD

Keystone LABORATORIES, INC.

☐ 600 E. 17tl
Newton, IA
Phone: 64
Fax: 641

1HF1091
HLW Engineering
PM: Heather Murphy

S St Paul
as City, KS 66105
e: 913-321-7856
913-831-6778

☐ 205 E VanBuren St
Centerville, IA 52544
Phone: 641-437-7023
Fax: 641-437-7040

PAGE 1 OF 1

PRINT OR TYPE INFORMATION BELOW

SAMPLER: TODD WHIPPLE
SITE NAME: Jones Co SLF
ADDRESS:
CITY/ST/ZIP:
PHONE:

REPORT TO:

NAME: TODD WHIPPLE
COMPANY NAME: HLW Group LLC
ADDRESS: P.O Box 314
CITY/ST/ZIP: STORY CITY IA 50248
PHONE: 515 733 4144
FAX: 4146

BILL TO:

NAME: Karl Taylor, Director
COMPANY NAME: Jone Count SWMC
ADDRESS: P.O Box 235
CITY/ST/ZIP: Anamosa, IA 52205
PHONE:

Keystone Quote No: (If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED: Zinc, total	LAB USE ONLY: SAMPLE CONDITION/COMMENTS	LABORATORY SAMPLE NUMBER
MW-16	6/13/24	14:02	MW-16	1	W	G	X	On Ice	01

LABORATORY WORK ORDER NO.: 1HF1091

SAMPLE TEMPERATURE UPON RECEIPT: 0.0 °C

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Turn-Around
Todd Whipple	6/14/24			☐ Standard ☐ Rush (Contact Lab Prior to Submission)
Relinquished by: (Signature)	Date / Time	Received for Lab by: (Signature)	Date 6-14-24 Time 10:58	Remarks:

Original - Lab Copy • Yellow - Sampler Copy

FORM: CCR 7-97

Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HJ1038

Project Description

Jones Co. Landfill - New Regs

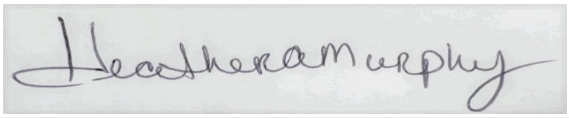
For:

Todd Whipple

HLW Engineering

204 West Broad St

Story City, IA 50248



Heather Murphy

Customer Relationship Specialist

Monday, October 28, 2024

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

1HJ1038

HLW Engineering

Todd Whipple
204 West Broad St
Story City, IA 50248

Project Name: Jones Co. Landfill - New Regs

Project / PO Number: N/A
Received: 10/09/2024
Reported: 10/28/2024

Sample Summary Report

Sample Name	Laboratory ID	Client Matrix	Sample Type	Sample Begin	Sample Taken	Lab Received
MW-12 (up)	1HJ1038-01	Aqueous	GRAB		10/08/24 09:54	10/09/24 10:10
MW-6	1HJ1038-02	Aqueous	GRAB		10/08/24 09:19	10/09/24 10:10
MW-11	1HJ1038-03	Aqueous	GRAB		10/08/24 09:42	10/09/24 10:10
MW-15	1HJ1038-04	Aqueous	GRAB		10/08/24 08:35	10/09/24 10:10
MW-16	1HJ1038-05	Aqueous	GRAB		10/08/24 08:22	10/09/24 10:10
MW-20	1HJ1038-06	Aqueous	GRAB		10/08/24 08:57	10/09/24 10:10
MW-22	1HJ1038-07	Aqueous	GRAB		10/08/24 07:59	10/09/24 10:10
Duplicate	1HJ1038-08	Aqueous	GRAB		10/08/24 00:00	10/09/24 10:10

Analytical Testing Parameters

Client Sample ID:	MW-12 (up)		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-01	**Collection Date:**	10/08/2024 9:54

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Bromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Chloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Acetone	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		10/14/24 0000	10/14/24 1506	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		10/14/24 0000	10/14/24 1506	CSM
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Chloroform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Benzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Dibromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Toluene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Chlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Xylenes, total	<2.0	2.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF

Client Sample ID:	MW-12 (up)		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-01	**Collection Date:**	10/08/2024 9:54

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Styrene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Bromoform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1846	BDF
Surrogate: Dibromofluoromethane	96.7	Limit: 75-136	% Rec	1		10/16/24 0000	10/16/24 1846	BDF
Surrogate: Dibromofluoromethane	97.3	Limit: 57-134	% Rec	1		10/14/24 0000	10/14/24 1506	CSM
Surrogate: Dibromofluoromethane	97.3	Limit: 75-136	% Rec	1		10/14/24 0000	10/14/24 1506	CSM
Surrogate: 1,2-Dichloroethane-d4	98.1	Limit: 53-140	% Rec	1		10/14/24 0000	10/14/24 1506	CSM
Surrogate: 1,2-Dichloroethane-d4	99.4	Limit: 61-142	% Rec	1		10/16/24 0000	10/16/24 1846	BDF
Surrogate: 1,2-Dichloroethane-d4	98.1	Limit: 61-142	% Rec	1		10/14/24 0000	10/14/24 1506	CSM
Surrogate: Toluene-d8	97.0	Limit: 82-121	% Rec	1		10/16/24 0000	10/16/24 1846	BDF
Surrogate: Toluene-d8	100	Limit: 86-114	% Rec	1		10/14/24 0000	10/14/24 1506	CSM
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec	1		10/14/24 0000	10/14/24 1506	CSM
Surrogate: 4-Bromofluorobenzene	105	Limit: 78-121	% Rec	1		10/14/24 0000	10/14/24 1506	CSM
Surrogate: 4-Bromofluorobenzene	96.2	Limit: 80-116	% Rec	1		10/16/24 0000	10/16/24 1846	BDF
Surrogate: 4-Bromofluorobenzene	105	Limit: 80-116	% Rec	1		10/14/24 0000	10/14/24 1506	CSM

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Barium, total	**0.253**	0.0040	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1834	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1834	RVV

Client Sample ID:	MW-6		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-02	**Collection Date:**	10/08/2024 9:19

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Bromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Chloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Acetone	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		10/14/24 0000	10/14/24 1528	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		10/14/24 0000	10/14/24 1528	CSM
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Chloroform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Benzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Dibromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Toluene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Chlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Xylenes, total	<2.0	2.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Styrene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Bromoform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF

Client Sample ID:	MW-6		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-02	**Collection Date:**	10/08/2024 9:19

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1909	BDF
Surrogate: Dibromofluoromethane	96.2	Limit: 75-136	% Rec	1		10/16/24 0000	10/16/24 1909	BDF
Surrogate: Dibromofluoromethane	98.5	Limit: 75-136	% Rec	1		10/14/24 0000	10/14/24 1528	CSM
Surrogate: Dibromofluoromethane	98.5	Limit: 57-134	% Rec	1		10/14/24 0000	10/14/24 1528	CSM
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 61-142	% Rec	1		10/14/24 0000	10/14/24 1528	CSM
Surrogate: 1,2-Dichloroethane-d4	99.5	Limit: 61-142	% Rec	1		10/16/24 0000	10/16/24 1909	BDF
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 53-140	% Rec	1		10/14/24 0000	10/14/24 1528	CSM
Surrogate: Toluene-d8	97.5	Limit: 82-121	% Rec	1		10/16/24 0000	10/16/24 1909	BDF
Surrogate: Toluene-d8	99.9	Limit: 82-121	% Rec	1		10/14/24 0000	10/14/24 1528	CSM
Surrogate: Toluene-d8	99.9	Limit: 86-114	% Rec	1		10/14/24 0000	10/14/24 1528	CSM
Surrogate: 4-Bromofluorobenzene	106	Limit: 80-116	% Rec	1		10/14/24 0000	10/14/24 1528	CSM
Surrogate: 4-Bromofluorobenzene	96.6	Limit: 80-116	% Rec	1		10/16/24 0000	10/16/24 1909	BDF
Surrogate: 4-Bromofluorobenzene	106	Limit: 78-121	% Rec	1		10/14/24 0000	10/14/24 1528	CSM

Determination of Base/Neutral Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 8270C								
Bis(2-Ethylhexyl) Phthalate	<13	13	ug/L	1	**B1**	10/15/24 1112	10/22/24 0137	EPP
Surrogate: Nitrobenzene-d5	84.4	Limit: 20-149	% Rec	1		10/15/24 1112	10/22/24 0137	EPP
Surrogate: 2-Fluorobiphenyl	80.6	Limit: 11-146	% Rec	1		10/15/24 1112	10/22/24 0137	EPP
Surrogate: Terphenyl-dl4	94.0	Limit: 27-155	% Rec	1		10/15/24 1112	10/22/24 0137	EPP

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Barium, total	**0.519**	0.0040	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Cobalt, total	**0.0022**	0.0004	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Nickel, total	**0.0129**	0.0040	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1859	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1859	RVV

CERTIFICATE OF ANALYSIS

1HJ1038

Client Sample ID:	MW-6		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-02	**Collection Date:**	10/08/2024 9:19

Client Sample ID:	MW-11		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-03	**Collection Date:**	10/08/2024 9:42

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Bromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Chloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Acetone	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		10/14/24 0000	10/14/24 1551	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		10/14/24 0000	10/14/24 1551	CSM
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Chloroform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Benzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Dibromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Toluene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Chlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Xylenes, total	<2.0	2.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Styrene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Bromoform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF

Client Sample ID:	MW-11		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-03	**Collection Date:**	10/08/2024 9:42

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1931	BDF
Surrogate: Dibromofluoromethane	98.2	Limit: 75-136	% Rec	1		10/14/24 0000	10/14/24 1551	CSM
Surrogate: Dibromofluoromethane	95.8	Limit: 75-136	% Rec	1		10/16/24 0000	10/16/24 1931	BDF
Surrogate: Dibromofluoromethane	98.2	Limit: 57-134	% Rec	1		10/14/24 0000	10/14/24 1551	CSM
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 53-140	% Rec	1		10/14/24 0000	10/14/24 1551	CSM
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 61-142	% Rec	1		10/14/24 0000	10/14/24 1551	CSM
Surrogate: 1,2-Dichloroethane-d4	98.7	Limit: 61-142	% Rec	1		10/16/24 0000	10/16/24 1931	BDF
Surrogate: Toluene-d8	97.9	Limit: 82-121	% Rec	1		10/16/24 0000	10/16/24 1931	BDF
Surrogate: Toluene-d8	101	Limit: 82-121	% Rec	1		10/14/24 0000	10/14/24 1551	CSM
Surrogate: Toluene-d8	101	Limit: 86-114	% Rec	1		10/14/24 0000	10/14/24 1551	CSM
Surrogate: 4-Bromofluorobenzene	96.6	Limit: 80-116	% Rec	1		10/16/24 0000	10/16/24 1931	BDF
Surrogate: 4-Bromofluorobenzene	106	Limit: 80-116	% Rec	1		10/14/24 0000	10/14/24 1551	CSM
Surrogate: 4-Bromofluorobenzene	106	Limit: 78-121	% Rec	1		10/14/24 0000	10/14/24 1551	CSM

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Barium, total	**0.249**	0.0040	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1917	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1917	RVV

Client Sample ID:	MW-15		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-04	**Collection Date:**	10/08/2024 8:35

Analyses Performed by: Microbac Laboratories Inc., - Marietta, OH

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA RSK-175			**Method Notes:** A8					
Methane	**3150**	50.0	ug/L	10	**D3**	10/22/24 1401	10/22/24 1748	KJB
Ethene	<5.00	5.00	ug/L	1		10/22/24 1401	10/22/24 1539	KJB
Ethane	<5.00	5.00	ug/L	1		10/22/24 1401	10/22/24 1539	KJB

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Bromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Chloroethane	**4.2**	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Acetone	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		10/14/24 0000	10/14/24 1613	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		10/14/24 0000	10/14/24 1613	CSM
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Chloroform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Benzene	**2.8**	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Dibromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Toluene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF

Client Sample ID:	MW-15		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-04	**Collection Date:**	10/08/2024 8:35

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Chlorobenzene	**4.7**	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Xylenes, total	<2.0	2.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Styrene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Bromoform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,4-Dichlorobenzene	**1.6**	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 1954	BDF
Surrogate: Dibromofluoromethane	98.8	Limit: 75-136	% Rec	1		10/14/24 0000	10/14/24 1613	CSM
Surrogate: Dibromofluoromethane	98.8	Limit: 57-134	% Rec	1		10/14/24 0000	10/14/24 1613	CSM
Surrogate: Dibromofluoromethane	95.1	Limit: 75-136	% Rec	1		10/16/24 0000	10/16/24 1954	BDF
Surrogate: 1,2-Dichloroethane-d4	98.6	Limit: 61-142	% Rec	1		10/16/24 0000	10/16/24 1954	BDF
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 61-142	% Rec	1		10/14/24 0000	10/14/24 1613	CSM
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 53-140	% Rec	1		10/14/24 0000	10/14/24 1613	CSM
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec	1		10/14/24 0000	10/14/24 1613	CSM
Surrogate: Toluene-d8	97.1	Limit: 82-121	% Rec	1		10/16/24 0000	10/16/24 1954	BDF
Surrogate: Toluene-d8	100	Limit: 86-114	% Rec	1		10/14/24 0000	10/14/24 1613	CSM
Surrogate: 4-Bromofluorobenzene	97.1	Limit: 80-116	% Rec	1		10/16/24 0000	10/16/24 1954	BDF
Surrogate: 4-Bromofluorobenzene	106	Limit: 80-116	% Rec	1		10/14/24 0000	10/14/24 1613	CSM
Surrogate: 4-Bromofluorobenzene	106	Limit: 78-121	% Rec	1		10/14/24 0000	10/14/24 1613	CSM

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2320B								
Alkalinity, as CaCO3	**394**	10	mg/L	1			10/14/24 1236	BSS
SM 4500 H+ B								
pH	**6.8**	0.5	pH	1	**H4**	10/16/24 1235	10/16/24 1305	BSS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Arsenic, total	**0.209**	0.0040	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Barium, total	**1.20**	0.0040	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Cobalt, total	**0.0155**	0.0004	mg/L	4		10/14/24 0757	10/14/24 1923	RVV

Client Sample ID:	MW-15		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-04	**Collection Date:**	10/08/2024 8:35

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Copper, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Nickel, total	**0.0851**	0.0040	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1923	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1923	RVV

Client Sample ID:	MW-16		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-05	**Collection Date:**	10/08/2024 8:22

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Bromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Chloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Acetone	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		10/14/24 0000	10/14/24 1635	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		10/14/24 0000	10/14/24 1635	CSM
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Chloroform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Benzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Dibromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Toluene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Chlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Xylenes, total	<2.0	2.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Styrene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Bromoform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF

Client Sample ID:	MW-16		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-05	**Collection Date:**	10/08/2024 8:22

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2017	BDF
Surrogate: Dibromofluoromethane	101	Limit: 57-134	% Rec	1		10/14/24 0000	10/14/24 1635	CSM
Surrogate: Dibromofluoromethane	101	Limit: 75-136	% Rec	1		10/14/24 0000	10/14/24 1635	CSM
Surrogate: Dibromofluoromethane	95.5	Limit: 75-136	% Rec	1		10/16/24 0000	10/16/24 2017	BDF
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 53-140	% Rec	1		10/14/24 0000	10/14/24 1635	CSM
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 61-142	% Rec	1		10/14/24 0000	10/14/24 1635	CSM
Surrogate: 1,2-Dichloroethane-d4	98.3	Limit: 61-142	% Rec	1		10/16/24 0000	10/16/24 2017	BDF
Surrogate: Toluene-d8	100	Limit: 86-114	% Rec	1		10/14/24 0000	10/14/24 1635	CSM
Surrogate: Toluene-d8	97.3	Limit: 82-121	% Rec	1		10/16/24 0000	10/16/24 2017	BDF
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec	1		10/14/24 0000	10/14/24 1635	CSM
Surrogate: 4-Bromofluorobenzene	106	Limit: 78-121	% Rec	1		10/14/24 0000	10/14/24 1635	CSM
Surrogate: 4-Bromofluorobenzene	106	Limit: 80-116	% Rec	1		10/14/24 0000	10/14/24 1635	CSM
Surrogate: 4-Bromofluorobenzene	96.4	Limit: 80-116	% Rec	1		10/16/24 0000	10/16/24 2017	BDF

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Barium, total	**0.0827**	0.0040	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Cobalt, total	**0.0006**	0.0004	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Nickel, total	**0.0067**	0.0040	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1929	RVV
Zinc, total	**0.0256**	0.0200	mg/L	4		10/14/24 0757	10/14/24 1929	RVV

Client Sample ID:	MW-20		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-06	**Collection Date:**	10/08/2024 8:57

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Bromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Chloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Acetone	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		10/14/24 0000	10/14/24 1658	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		10/14/24 0000	10/14/24 1658	CSM
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Chloroform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Benzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Dibromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Toluene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Chlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Xylenes, total	<2.0	2.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Styrene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Bromoform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF

Client Sample ID:	MW-20		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-06	**Collection Date:**	10/08/2024 8:57

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2039	BDF
Surrogate: Dibromofluoromethane	96.2	Limit: 75-136	% Rec	1		10/16/24 0000	10/16/24 2039	BDF
Surrogate: Dibromofluoromethane	103	Limit: 57-134	% Rec	1		10/14/24 0000	10/14/24 1658	CSM
Surrogate: Dibromofluoromethane	103	Limit: 75-136	% Rec	1		10/14/24 0000	10/14/24 1658	CSM
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 53-140	% Rec	1		10/14/24 0000	10/14/24 1658	CSM
Surrogate: 1,2-Dichloroethane-d4	99.8	Limit: 61-142	% Rec	1		10/16/24 0000	10/16/24 2039	BDF
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 61-142	% Rec	1		10/14/24 0000	10/14/24 1658	CSM
Surrogate: Toluene-d8	97.4	Limit: 82-121	% Rec	1		10/16/24 0000	10/16/24 2039	BDF
Surrogate: Toluene-d8	99.5	Limit: 86-114	% Rec	1		10/14/24 0000	10/14/24 1658	CSM
Surrogate: Toluene-d8	99.5	Limit: 82-121	% Rec	1		10/14/24 0000	10/14/24 1658	CSM
Surrogate: 4-Bromofluorobenzene	107	Limit: 78-121	% Rec	1		10/14/24 0000	10/14/24 1658	CSM
Surrogate: 4-Bromofluorobenzene	96.1	Limit: 80-116	% Rec	1		10/16/24 0000	10/16/24 2039	BDF
Surrogate: 4-Bromofluorobenzene	107	Limit: 80-116	% Rec	1		10/14/24 0000	10/14/24 1658	CSM

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Barium, total	**0.120**	0.0040	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1936	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1936	RVV

Client Sample ID:	MW-22		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-07	**Collection Date:**	10/08/2024 7:59

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Bromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Chloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Acetone	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		10/14/24 0000	10/14/24 1720	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		10/14/24 0000	10/14/24 1720	CSM
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Chloroform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Benzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Dibromomethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Toluene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Chlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Xylenes, total	<2.0	2.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Styrene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Bromoform	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF

Client Sample ID:	MW-22		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-07	**Collection Date:**	10/08/2024 7:59

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/16/24 0000	10/16/24 2102	BDF
Surrogate: Dibromofluoromethane	95.9	Limit: 75-136	% Rec	1		10/16/24 0000	10/16/24 2102	BDF
Surrogate: Dibromofluoromethane	101	Limit: 75-136	% Rec	1		10/14/24 0000	10/14/24 1720	CSM
Surrogate: Dibromofluoromethane	101	Limit: 57-134	% Rec	1		10/14/24 0000	10/14/24 1720	CSM
Surrogate: 1,2-Dichloroethane-d4	98.6	Limit: 61-142	% Rec	1		10/16/24 0000	10/16/24 2102	BDF
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 61-142	% Rec	1		10/14/24 0000	10/14/24 1720	CSM
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 53-140	% Rec	1		10/14/24 0000	10/14/24 1720	CSM
Surrogate: Toluene-d8	97.1	Limit: 82-121	% Rec	1		10/16/24 0000	10/16/24 2102	BDF
Surrogate: Toluene-d8	99.9	Limit: 82-121	% Rec	1		10/14/24 0000	10/14/24 1720	CSM
Surrogate: Toluene-d8	99.9	Limit: 86-114	% Rec	1		10/14/24 0000	10/14/24 1720	CSM
Surrogate: 4-Bromofluorobenzene	96.3	Limit: 80-116	% Rec	1		10/16/24 0000	10/16/24 2102	BDF
Surrogate: 4-Bromofluorobenzene	104	Limit: 80-116	% Rec	1		10/14/24 0000	10/14/24 1720	CSM
Surrogate: 4-Bromofluorobenzene	104	Limit: 78-121	% Rec	1		10/14/24 0000	10/14/24 1720	CSM

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Barium, total	**0.161**	0.0040	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Cobalt, total	**0.0005**	0.0004	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1942	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1942	RVV

Client Sample ID:	Duplicate		
Sample Matrix:	Aqueous	**Collected By:**	Whipple, Todd
Lab Sample ID:	1HJ1038-08	**Collection Date:**	10/08/2024

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Barium, total	**0.161**	0.0040	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Cobalt, total	**0.0004**	0.0004	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1948	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/14/24 0757	10/14/24 1948	RVV

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1HJ0766	1HJ0766-BLK1	
		1HJ0766-BS1	
		1HJ1038-01	MW-12 (up)
		1HJ0766-MS1	1HJ1038-01
		1HJ0766-MSD1	1HJ1038-01
		1HJ0766-PS1	1HJ1038-01
		1HJ1038-02	MW-6
		1HJ1038-03	MW-11
		1HJ1038-04	MW-15
		1HJ1038-05	MW-16
		1HJ1038-06	MW-20
		1HJ1038-07	MW-22
		1HJ1038-08	Duplicate

Method	Batch	Laboratory ID	Client / Source ID
2320B	1HJ0795	1HJ0795-BLK1	
		1HJ0795-BS1	
		1HJ0795-MS1	1HJ0795-04
		1HJ0795-MSD1	1HJ0795-04
		1HJ1038-04	MW-15

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	1HJ0859	1HJ0859-BLK1	
		1HJ0859-BS1	
		1HJ0859-BSD1	
		1HJ1038-02	MW-6

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1HJ0887	1HJ0887-BS1	
		1HJ0887-BSD1	
		1HJ0887-BLK1	
		1HJ1038-01RE1	MW-12 (up)
		1HJ1038-01	MW-12 (up)
		1HJ1038-02RE1	MW-6
		1HJ1038-02	MW-6
		1HJ1038-03	MW-11
		1HJ1038-03RE1	MW-11
		1HJ1038-04	MW-15
		1HJ1038-04RE1	MW-15
		1HJ1038-05RE1	MW-16

EPA 8260B	1HJ0887	1HJ1038-05	MW-16
		1HJ1038-06RE1	MW-20
		1HJ1038-06	MW-20
		1HJ1038-07RE1	MW-22
		1HJ1038-07	MW-22
		1HJ0887-MS1	1HJ1076-07
		1HJ0887-MSD1	1HJ1076-07

Method	Batch	Laboratory ID	Client / Source ID
SM 4500 H+ B	1HJ0948	1HJ1038-04	MW-15
		1HJ0948-SRM2	
		1HJ0948-SRM1	
		1HJ0948-DUP1	1HJ1025-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1HJ1047	1HJ1047-BS1	
		1HJ1047-BSD1	
		1HJ1047-BLK1	
		1HJ1038-01	MW-12 (up)
		1HJ1038-02	MW-6
		1HJ1038-03	MW-11
		1HJ1038-04	MW-15
		1HJ1038-05	MW-16
		1HJ1038-06	MW-20
		1HJ1038-07	MW-22
		1HJ1047-MS1	1HJ1038-07
		1HJ1047-MSD1	1HJ1038-07

Method	Batch	Laboratory ID	Client / Source ID
EPA RSK-175	B4J1197	B4J1197-BLK1	
		B4J1197-BS1	
		B4J1197-BSD1	
		1HJ1038-04	MW-15
		1HJ1038-04RE1	MW-15

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 1HJ0887 - EPA 5030B - EPA 8260B										
Blank (1HJ0887-BLK1)			Prepared: 10/14/24 00:00 Analyzed: 10/14/24 14:43							
Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ0887 - EPA 5030B - EPA 8260B										
Blank (1HJ0887-BLK1)				Prepared: 10/14/24 00:00 Analyzed: 10/14/24 14:43						
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							
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							

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ0887 - EPA 5030B - EPA 8260B										
Blank (1HJ0887-BLK1)			Prepared: 10/14/24 00:00 Analyzed: 10/14/24 14:43							
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
Surrogate: Dibromofluoromethane	*48.1*		ug/L	*50.2*		*95.8*	*57-134*			
Surrogate: Dibromofluoromethane	*48.1*		ug/L	*50.2*		*95.8*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*48.8*		ug/L	*50.4*		*96.9*	*53-140*			
Surrogate: 1,2-Dichloroethane-d4	*48.8*		ug/L	*50.4*		*96.9*	*61-142*			
Surrogate: Toluene-d8	*50.4*		ug/L	*50.5*		*99.8*	*86-114*			
Surrogate: Toluene-d8	*50.4*		ug/L	*50.5*		*99.8*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*52.7*		ug/L	*50.2*		*105*	*78-121*			
Surrogate: 4-Bromofluorobenzene	*52.7*		ug/L	*50.2*		*105*	*80-116*			
LCS (1HJ0887-BS1)			Prepared: 10/14/24 00:00 Analyzed: 10/14/24 13:36							
Chloromethane	30.28	1.0	ug/L	30.3		99.9	63-155			
Vinyl Chloride	26.97	1.0	ug/L	30.2		89.2	70-154			
Bromomethane	20.35	1.0	ug/L	30.1		67.6	52-176			
Chloroethane	33.22	1.0	ug/L	30.3		110	72-148			
Trichlorofluoromethane	31.91	1.0	ug/L	30.3		105	70-152			
1,1-Dichloroethylene	53.15	1.0	ug/L	50.1		106	70-148			
Acetone	92.18	10.0	ug/L	100		92.1	43-172			
Methyl Iodide	79.74	1.0	ug/L	100		79.6	69-170			
Carbon Disulfide	117.6	1.0	ug/L	100		117	72-162			
Methylene Chloride	51.31	5.0	ug/L	50.2		102	68-142			
Acrylonitrile	48.69	5.0	ug/L	50.2		97.0	56-135			
trans-1,2-Dichloroethylene	50.92	1.0	ug/L	50.3		101	66-148			
1,1-Dichloroethane	50.97	1.0	ug/L	50.3		101	66-143			
Vinyl Acetate	157.7	5.0	ug/L	156		101	43-153			
cis-1,2-Dichloroethylene	44.46	1.0	ug/L	50.5		88.0	71-149			
2-Butanone (MEK)	82.56	10.0	ug/L	100		82.4	52-159			
Bromochloromethane	50.11	1.0	ug/L	50.4		99.4	69-143			
Chloroform	46.67	1.0	ug/L	50.2		93.0	69-144			
1,1,1-Trichloroethane	45.21	1.0	ug/L	50.3		89.9	62-129			
Carbon Tetrachloride	45.79	1.0	ug/L	50.2		91.2	63-141			
Benzene	52.16	1.0	ug/L	50.4		103	71-134			
1,2-Dichloroethane	48.77	1.0	ug/L	50.2		97.2	72-132			
Trichloroethylene	48.83	1.0	ug/L	50.3		97.0	71-135			
1,2-Dichloropropane	47.94	1.0	ug/L	50.2		95.5	69-136			
Dibromomethane	44.86	1.0	ug/L	50.5		88.9	73-147			
Bromodichloromethane	47.19	1.0	ug/L	50.3		93.9	68-129			
cis-1,3-Dichloropropene	49.33	1.0	ug/L	50.2		98.2	65-134			
4-Methyl-2-pentanone (MIBK)	93.62	5.0	ug/L	100		93.4	58-147			
Toluene	49.10	1.0	ug/L	50.5		97.3	72-133			
trans-1,3-Dichloropropene	47.59	1.0	ug/L	50.3		94.7	67-130			
1,1,2-Trichloroethane	46.30	1.0	ug/L	50.2		92.2	69-135			
Tetrachloroethylene	49.51	1.0	ug/L	50.2		98.6	69-130			
2-Hexanone (MBK)	87.60	5.0	ug/L	100		87.5	55-144			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ0887 - EPA 5030B - EPA 8260B										
LCS (1HJ0887-BS1)				Prepared: 10/14/24 00:00 Analyzed: 10/14/24 13:36						
Dibromochloromethane	46.16	1.0	ug/L	50.3		91.7	73-127			
1,2-Dibromoethane	44.32	1.0	ug/L	50.4		87.9	67-132			
Chlorobenzene	48.64	1.0	ug/L	50.2		96.8	72-123			
1,1,1,2-Tetrachloroethane	45.78	1.0	ug/L	50.4		90.8	73-127			
Ethylbenzene	48.23	1.0	ug/L	50.5		95.6	71-127			
Xylenes, total	151.2	2.0	ug/L	151		99.9	74-127			
Styrene	49.09	1.0	ug/L	50.4		97.4	66-126			
Bromoform	44.34	1.0	ug/L	50.2		88.3	68-130			
1,2,3-Trichloropropane	44.26	1.0	ug/L	50.4		87.7	63-136			
trans-1,4-Dichloro-2-butene	84.64	5.0	ug/L	100		84.4	54-134			
1,1,2,2-Tetrachloroethane	45.53	1.0	ug/L	50.2		90.7	61-131			
1,4-Dichlorobenzene	48.56	1.0	ug/L	50.2		96.8	70-129			
1,2-Dichlorobenzene	45.30	1.0	ug/L	50.2		90.3	69-126			
1,2-Dibromo-3-chloropropane	40.15	5.0	ug/L	50.5		79.5	50-143			
Surrogate: Dibromofluoromethane	*47.6*		ug/L	*50.2*		*94.8*	*57-134*			
Surrogate: Dibromofluoromethane	*47.6*		ug/L	*50.2*		*94.8*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*46.1*		ug/L	*50.4*		*91.5*	*53-140*			
Surrogate: 1,2-Dichloroethane-d4	*46.1*		ug/L	*50.4*		*91.5*	*61-142*			
Surrogate: Toluene-d8	*51.7*		ug/L	*50.5*		*102*	*86-114*			
Surrogate: Toluene-d8	*51.7*		ug/L	*50.5*		*102*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*51.0*		ug/L	*50.2*		*102*	*78-121*			
Surrogate: 4-Bromofluorobenzene	*51.0*		ug/L	*50.2*		*102*	*80-116*			
LCS Dup (1HJ0887-BSD1)				Prepared: 10/14/24 00:00 Analyzed: 10/14/24 13:58						
Chloromethane	27.66	1.0	ug/L	30.3		91.2	63-155	9.04	24	
Vinyl Chloride	25.27	1.0	ug/L	30.2		83.5	70-154	6.51	25	
Bromomethane	18.41	1.0	ug/L	30.1		61.1	52-176	10.0	27	
Chloroethane	31.14	1.0	ug/L	30.3		103	72-148	6.46	25	
Trichlorofluoromethane	30.25	1.0	ug/L	30.3		99.8	70-152	5.34	26	
1,1-Dichloroethylene	49.94	1.0	ug/L	50.1		99.6	70-148	6.23	24	
Acetone	103.5	10.0	ug/L	100		103	43-172	11.5	30	
Methyl Iodide	81.04	1.0	ug/L	100		80.9	69-170	1.62	30	
Carbon Disulfide	112.4	1.0	ug/L	100		112	72-162	4.54	24	
Methylene Chloride	51.33	5.0	ug/L	50.2		102	68-142	0.0390	21	
Acrylonitrile	55.35	5.0	ug/L	50.2		110	56-135	12.8	16	
trans-1,2-Dichloroethylene	50.25	1.0	ug/L	50.3		99.9	66-148	1.32	27	
1,1-Dichloroethane	51.82	1.0	ug/L	50.3		103	66-143	1.65	24	
Vinyl Acetate	172.6	5.0	ug/L	156		111	43-153	9.03	30	
cis-1,2-Dichloroethylene	45.59	1.0	ug/L	50.5		90.3	71-149	2.51	26	
2-Butanone (MEK)	101.9	10.0	ug/L	100		102	52-159	20.9	27	
Bromochloromethane	52.15	1.0	ug/L	50.4		103	69-143	3.99	23	
Chloroform	47.73	1.0	ug/L	50.2		95.1	69-144	2.25	23	
1,1,1-Trichloroethane	46.78	1.0	ug/L	50.3		93.0	62-129	3.41	24	
Carbon Tetrachloride	47.46	1.0	ug/L	50.2		94.5	63-141	3.58	25	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ0887 - EPA 5030B - EPA 8260B										
LCS Dup (1HJ0887-BSD1)				Prepared: 10/14/24 00:00 Analyzed: 10/14/24 13:58						
Benzene	53.78	1.0	ug/L	50.4		107	71-134	3.06	24	
1,2-Dichloroethane	50.98	1.0	ug/L	50.2		102	72-132	4.43	24	
Trichloroethylene	49.70	1.0	ug/L	50.3		98.7	71-135	1.77	24	
1,2-Dichloropropane	49.68	1.0	ug/L	50.2		98.9	69-136	3.56	24	
Dibromomethane	49.03	1.0	ug/L	50.5		97.1	73-147	8.88	25	
Bromodichloromethane	49.47	1.0	ug/L	50.3		98.4	68-129	4.72	22	
cis-1,3-Dichloropropene	51.76	1.0	ug/L	50.2		103	65-134	4.81	23	
4-Methyl-2-pentanone (MIBK)	115.3	5.0	ug/L	100		115	58-147	20.8	27	
Toluene	50.98	1.0	ug/L	50.5		101	72-133	3.76	24	
trans-1,3-Dichloropropene	50.75	1.0	ug/L	50.3		101	67-130	6.43	24	
1,1,2-Trichloroethane	51.13	1.0	ug/L	50.2		102	69-135	9.91	23	
Tetrachloroethylene	50.52	1.0	ug/L	50.2		101	69-130	2.02	25	
2-Hexanone (MBK)	110.9	5.0	ug/L	100		111	55-144	23.5	25	
Dibromochloromethane	50.01	1.0	ug/L	50.3		99.3	73-127	8.01	22	
1,2-Dibromoethane	48.67	1.0	ug/L	50.4		96.5	67-132	9.36	24	
Chlorobenzene	50.86	1.0	ug/L	50.2		101	72-123	4.46	23	
1,1,1,2-Tetrachloroethane	47.98	1.0	ug/L	50.4		95.1	73-127	4.69	24	
Ethylbenzene	49.69	1.0	ug/L	50.5		98.5	71-127	2.98	26	
Xylenes, total	155.9	2.0	ug/L	151		103	74-127	3.05	25	
Styrene	51.20	1.0	ug/L	50.4		102	66-126	4.21	23	
Bromoform	49.86	1.0	ug/L	50.2		99.3	68-130	11.7	23	
1,2,3-Trichloropropane	53.18	1.0	ug/L	50.4		105	63-136	18.3	24	
trans-1,4-Dichloro-2-butene	100.4	5.0	ug/L	100		100	54-134	17.1	27	
1,1,2,2-Tetrachloroethane	54.56	1.0	ug/L	50.2		109	61-131	18.0	29	
1,4-Dichlorobenzene	50.96	1.0	ug/L	50.2		102	70-129	4.82	24	
1,2-Dichlorobenzene	48.23	1.0	ug/L	50.2		96.1	69-126	6.27	26	
1,2-Dibromo-3-chloropropane	52.03	5.0	ug/L	50.5		103	50-143	25.8	30	
Surrogate: Dibromofluoromethane	*48.2*		ug/L	*50.2*		*95.9*	*57-134*			
Surrogate: Dibromofluoromethane	*48.2*		ug/L	*50.2*		*95.9*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*47.9*		ug/L	*50.4*		*95.2*	*53-140*			
Surrogate: 1,2-Dichloroethane-d4	*47.9*		ug/L	*50.4*		*95.2*	*61-142*			
Surrogate: Toluene-d8	*52.4*		ug/L	*50.5*		*104*	*86-114*			
Surrogate: Toluene-d8	*52.4*		ug/L	*50.5*		*104*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*52.2*		ug/L	*50.2*		*104*	*78-121*			
Surrogate: 4-Bromofluorobenzene	*52.2*		ug/L	*50.2*		*104*	*80-116*			
Matrix Spike (1HJ0887-MS1)	**Source: 1HJ1076-07**			Prepared: 10/14/24 00:00 Analyzed: 10/15/24 07:50						
Chloromethane	326.6	10.0	ug/L	303	ND	108	61-152			
Vinyl Chloride	194.4	10.0	ug/L	302	ND	64.3	66-149			M2
Bromomethane	118.8	10.0	ug/L	301	ND	39.4	43-171			M2
Chloroethane	282.8	10.0	ug/L	303	ND	93.3	69-148			
Trichlorofluoromethane	366.3	10.0	ug/L	303	ND	121	62-163			
1,1-Dichloroethylene	593.2	10.0	ug/L	501	ND	118	70-148			
Acetone	1134	100	ug/L	1000	ND	113	45-173			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ0887 - EPA 5030B - EPA 8260B										
Matrix Spike (1HJ0887-MS1)	**Source: 1HJ1076-07**	Prepared: 10/14/24 00:00 Analyzed: 10/15/24 07:50								
Methyl Iodide	476.1	10.0	ug/L	1000	ND	47.5	62-167			M2
Carbon Disulfide	1269	10.0	ug/L	1000	ND	127	71-163			
Methylene Chloride	558.6	50.0	ug/L	502	ND	111	69-140			
Acrylonitrile	589.9	50.0	ug/L	502	ND	118	38-147			
trans-1,2-Dichloroethylene	564.3	10.0	ug/L	503	ND	112	69-144			
1,1-Dichloroethane	577.0	10.0	ug/L	503	ND	115	70-138			
Vinyl Acetate	1744	50.0	ug/L	1560	ND	112	58-142			
cis-1,2-Dichloroethylene	484.8	10.0	ug/L	505	ND	96.0	68-151			
2-Butanone (MEK)	1106	100	ug/L	1000	ND	110	50-160			
Bromochloromethane	530.6	10.0	ug/L	504	ND	105	65-143			
Chloroform	511.4	10.0	ug/L	502	ND	102	71-143			
1,1,1-Trichloroethane	508.4	10.0	ug/L	503	ND	101	63-133			
Carbon Tetrachloride	515.0	10.0	ug/L	502	ND	103	63-142			
Benzene	577.2	10.0	ug/L	504	ND	114	69-133			
1,2-Dichloroethane	519.3	10.0	ug/L	502	ND	103	63-138			
Trichloroethylene	524.8	10.0	ug/L	503	ND	104	71-133			
1,2-Dichloropropane	510.9	10.0	ug/L	502	ND	102	69-132			
Dibromomethane	504.1	10.0	ug/L	505	ND	99.9	70-147			
Bromodichloromethane	511.0	10.0	ug/L	503	ND	102	67-130			
cis-1,3-Dichloropropene	505.6	10.0	ug/L	502	ND	101	61-126			
4-Methyl-2-pentanone (MIBK)	1266	50.0	ug/L	1000	ND	126	55-147			
Toluene	547.4	10.0	ug/L	505	ND	108	71-133			
trans-1,3-Dichloropropene	489.5	10.0	ug/L	503	ND	97.4	63-124			
1,1,2-Trichloroethane	521.5	10.0	ug/L	502	ND	104	69-133			
Tetrachloroethylene	543.0	10.0	ug/L	502	ND	108	70-124			
2-Hexanone (MBK)	1219	50.0	ug/L	1000	ND	122	53-141			
Dibromochloromethane	492.2	10.0	ug/L	503	ND	97.8	74-122			
1,2-Dibromoethane	491.3	10.0	ug/L	504	ND	97.4	66-127			
Chlorobenzene	528.6	10.0	ug/L	502	ND	105	76-116			
1,1,1,2-Tetrachloroethane	483.7	10.0	ug/L	504	ND	95.9	77-121			
Ethylbenzene	514.2	10.0	ug/L	505	ND	102	73-124			
Xylenes, total	1597	20.0	ug/L	1510	ND	106	75-123			
Styrene	517.6	10.0	ug/L	504	ND	103	70-120			
Bromoform	498.4	10.0	ug/L	502	ND	99.2	70-124			
1,2,3-Trichloropropane	545.1	10.0	ug/L	504	ND	108	62-135			
trans-1,4-Dichloro-2-butene	929.6	50.0	ug/L	1000	ND	92.7	50-120			
1,1,2,2-Tetrachloroethane	555.3	10.0	ug/L	502	ND	111	63-126			
1,4-Dichlorobenzene	511.9	10.0	ug/L	502	ND	102	72-119			
1,2-Dichlorobenzene	492.1	10.0	ug/L	502	ND	98.1	71-117			
1,2-Dibromo-3-chloropropane	537.4	50.0	ug/L	505	ND	106	49-134			
Surrogate: Dibromofluoromethane	*491*		ug/L	*502*		*97.7*	*57-134*			
Surrogate: Dibromofluoromethane	*491*		ug/L	*502*		*97.7*	*75-136*			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ0887 - EPA 5030B - EPA 8260B										
Matrix Spike (1HJ0887-MS1)	**Source: 1HJ1076-07**		Prepared: 10/14/24 00:00 Analyzed: 10/15/24 07:50							
Surrogate: 1,2-Dichloroethane-d4	*482*		ug/L	*504*		*95.6*	*53-140*			
Surrogate: 1,2-Dichloroethane-d4	*482*		ug/L	*504*		*95.6*	*61-142*			
Surrogate: Toluene-d8	*540*		ug/L	*505*		*107*	*86-114*			
Surrogate: Toluene-d8	*540*		ug/L	*505*		*107*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*513*		ug/L	*502*		*102*	*78-121*			
Surrogate: 4-Bromofluorobenzene	*513*		ug/L	*502*		*102*	*80-116*			
Matrix Spike Dup (1HJ0887-MSD1)	**Source: 1HJ1076-07**		Prepared: 10/14/24 00:00 Analyzed: 10/15/24 08:12							
Chloromethane	262.9	10.0	ug/L	303	ND	86.7	61-152	21.6	26	
Vinyl Chloride	240.1	10.0	ug/L	302	ND	79.4	66-149	21.0	23	
Bromomethane	166.3	10.0	ug/L	301	ND	55.2	43-171	33.3	29	R1
Chloroethane	312.4	10.0	ug/L	303	ND	103	69-148	9.95	25	
Trichlorofluoromethane	307.3	10.0	ug/L	303	ND	101	62-163	17.5	25	
1,1-Dichloroethylene	499.1	10.0	ug/L	501	ND	99.5	70-148	17.2	22	
Acetone	1064	100	ug/L	1000	ND	106	45-173	6.42	30	
Methyl Iodide	782.8	10.0	ug/L	1000	ND	78.1	62-167	48.7	24	R1
Carbon Disulfide	1110	10.0	ug/L	1000	ND	111	71-163	13.4	22	
Methylene Chloride	501.7	50.0	ug/L	502	ND	100	69-140	10.7	19	
Acrylonitrile	549.3	50.0	ug/L	502	ND	109	38-147	7.13	30	
trans-1,2-Dichloroethylene	498.9	10.0	ug/L	503	ND	99.2	69-144	12.3	22	
1,1-Dichloroethane	512.5	10.0	ug/L	503	ND	102	70-138	11.8	20	
Vinyl Acetate	1622	50.0	ug/L	1560	ND	104	58-142	7.28	24	
cis-1,2-Dichloroethylene	430.1	10.0	ug/L	505	ND	85.2	68-151	12.0	22	
2-Butanone (MEK)	1054	100	ug/L	1000	ND	105	50-160	4.88	23	
Bromochloromethane	517.4	10.0	ug/L	504	ND	103	65-143	2.52	22	
Chloroform	484.1	10.0	ug/L	502	ND	96.5	71-143	5.48	21	
1,1,1-Trichloroethane	473.7	10.0	ug/L	503	ND	94.2	63-133	7.07	23	
Carbon Tetrachloride	486.0	10.0	ug/L	502	ND	96.8	63-142	5.79	22	
Benzene	518.0	10.0	ug/L	504	ND	103	69-133	10.8	18	
1,2-Dichloroethane	489.8	10.0	ug/L	502	ND	97.6	63-138	5.85	20	
Trichloroethylene	487.9	10.0	ug/L	503	ND	96.9	71-133	7.29	23	
1,2-Dichloropropane	481.2	10.0	ug/L	502	ND	95.8	69-132	5.99	20	
Dibromomethane	471.0	10.0	ug/L	505	ND	93.3	70-147	6.79	22	
Bromodichloromethane	477.1	10.0	ug/L	503	ND	94.9	67-130	6.86	21	
cis-1,3-Dichloropropene	468.0	10.0	ug/L	502	ND	93.2	61-126	7.72	21	
4-Methyl-2-pentanone (MIBK)	1117	50.0	ug/L	1000	ND	111	55-147	12.5	23	
Toluene	494.3	10.0	ug/L	505	ND	97.9	71-133	10.2	19	
trans-1,3-Dichloropropene	459.3	10.0	ug/L	503	ND	91.4	63-124	6.37	21	
1,1,2-Trichloroethane	491.0	10.0	ug/L	502	ND	97.8	69-133	6.02	19	
Tetrachloroethylene	479.3	10.0	ug/L	502	ND	95.4	70-124	12.5	24	
2-Hexanone (MBK)	1064	50.0	ug/L	1000	ND	106	53-141	13.6	24	
Dibromochloromethane	469.5	10.0	ug/L	503	ND	93.3	74-122	4.72	21	
1,2-Dibromoethane	465.5	10.0	ug/L	504	ND	92.3	66-127	5.39	23	
Chlorobenzene	477.6	10.0	ug/L	502	ND	95.1	76-116	10.1	21	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ0887 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1HJ0887-MSD1)	**Source: 1HJ1076-07**		Prepared: 10/14/24 00:00 Analyzed: 10/15/24 08:12							
1,1,1,2-Tetrachloroethane	459.4	10.0	ug/L	504	ND	91.1	77-121	5.15	25	
Ethylbenzene	472.4	10.0	ug/L	505	ND	93.6	73-124	8.47	20	
Xylenes, total	1482	20.0	ug/L	1510	ND	98.0	75-123	7.45	20	
Styrene	482.3	10.0	ug/L	504	ND	95.7	70-120	7.06	23	
Bromoform	478.1	10.0	ug/L	502	ND	95.2	70-124	4.16	22	
1,2,3-Trichloropropane	510.4	10.0	ug/L	504	ND	101	62-135	6.58	28	
trans-1,4-Dichloro-2-butene	848.8	50.0	ug/L	1000	ND	84.7	50-120	9.09	26	
1,1,2,2-Tetrachloroethane	509.3	10.0	ug/L	502	ND	101	63-126	8.64	24	
1,4-Dichlorobenzene	476.7	10.0	ug/L	502	ND	95.0	72-119	7.12	24	
1,2-Dichlorobenzene	458.2	10.0	ug/L	502	ND	91.3	71-117	7.13	24	
1,2-Dibromo-3-chloropropane	496.5	50.0	ug/L	505	ND	98.4	49-134	7.91	28	
Surrogate: Dibromofluoromethane	*498*		ug/L	*502*		*99.3*	*57-134*			
Surrogate: Dibromofluoromethane	*498*		ug/L	*502*		*99.3*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*491*		ug/L	*504*		*97.5*	*53-140*			
Surrogate: 1,2-Dichloroethane-d4	*491*		ug/L	*504*		*97.5*	*61-142*			
Surrogate: Toluene-d8	*529*		ug/L	*505*		*105*	*86-114*			
Surrogate: Toluene-d8	*529*		ug/L	*505*		*105*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*520*		ug/L	*502*		*104*	*78-121*			
Surrogate: 4-Bromofluorobenzene	*520*		ug/L	*502*		*104*	*80-116*			
Batch 1HJ1047 - EPA 5030B - EPA 8260B										
Blank (1HJ1047-BLK1)			Prepared: 10/16/24 00:00 Analyzed: 10/16/24 11:55							
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							
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							
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							

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ1047 - EPA 5030B - EPA 8260B										
Blank (1HJ1047-BLK1)				Prepared: 10/16/24 00:00 Analyzed: 10/16/24 11:55						
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	*50.3*		ug/L	*50.2*		*100*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*51.0*		ug/L	*50.4*		*101*	*61-142*			
Surrogate: Toluene-d8	*49.7*		ug/L	*50.5*		*98.4*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*48.8*		ug/L	*50.2*		*97.3*	*80-116*			
LCS (1HJ1047-BS1)				Prepared: 10/16/24 00:00 Analyzed: 10/16/24 10:47						
Chloromethane	24.81	1.0	ug/L	30.0		82.7	63-155			
Vinyl Chloride	24.67	1.0	ug/L	30.0		82.2	70-154			
Bromomethane	25.24	1.0	ug/L	30.0		84.1	52-176			
Chloroethane	29.29	1.0	ug/L	30.0		97.6	72-148			
Trichlorofluoromethane	26.71	1.0	ug/L	30.0		89.0	70-152			
1,1-Dichloroethylene	48.31	1.0	ug/L	50.0		96.6	70-148			
Acetone	95.84	10.0	ug/L	101		94.7	43-172			
Methyl Iodide	104.1	1.0	ug/L	102		102	69-170			
Methylene Chloride	50.85	5.0	ug/L	50.0		102	68-142			
trans-1,2-Dichloroethylene	48.79	1.0	ug/L	50.0		97.6	66-148			
1,1-Dichloroethane	48.91	1.0	ug/L	50.0		97.8	66-143			
Vinyl Acetate	106.8	5.0	ug/L	100		107	43-153			
cis-1,2-Dichloroethylene	48.17	1.0	ug/L	50.0		96.3	71-149			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ1047 - EPA 5030B - EPA 8260B										
LCS (1HJ1047-BS1)				Prepared: 10/16/24 00:00 Analyzed: 10/16/24 10:47						
2-Butanone (MEK)	95.20	10.0	ug/L	102		93.5	52-159			
Bromochloromethane	46.95	1.0	ug/L	50.0		93.9	69-143			
Chloroform	45.77	1.0	ug/L	50.0		91.5	69-144			
1,1,1-Trichloroethane	48.10	1.0	ug/L	50.0		96.2	62-129			
Carbon Tetrachloride	50.94	1.0	ug/L	50.0		102	63-141			
Benzene	46.30	1.0	ug/L	50.0		92.6	71-134			
1,2-Dichloroethane	46.89	1.0	ug/L	50.0		93.8	72-132			
Trichloroethylene	46.66	1.0	ug/L	50.0		93.3	71-135			
1,2-Dichloropropane	48.28	1.0	ug/L	50.0		96.6	69-136			
Dibromomethane	50.22	1.0	ug/L	50.0		100	73-147			
Bromodichloromethane	49.25	1.0	ug/L	50.0		98.5	68-129			
cis-1,3-Dichloropropene	46.59	1.0	ug/L	50.0		93.2	65-134			
4-Methyl-2-pentanone (MIBK)	104.4	5.0	ug/L	100		104	58-147			
Toluene	45.45	1.0	ug/L	50.0		90.9	72-133			
trans-1,3-Dichloropropene	48.12	1.0	ug/L	50.0		96.2	67-130			
1,1,2-Trichloroethane	48.32	1.0	ug/L	50.0		96.6	69-135			
Tetrachloroethylene	47.11	1.0	ug/L	50.0		94.2	69-130			
2-Hexanone (MBK)	105.4	5.0	ug/L	99.3		106	55-144			
Dibromochloromethane	49.49	1.0	ug/L	50.0		99.0	73-127			
1,2-Dibromoethane	48.07	1.0	ug/L	50.0		96.1	67-132			
Chlorobenzene	46.02	1.0	ug/L	50.0		92.0	72-123			
1,1,1,2-Tetrachloroethane	48.26	1.0	ug/L	50.0		96.5	73-127			
Ethylbenzene	47.35	1.0	ug/L	50.0		94.7	71-127			
Xylenes, total	144.6	2.0	ug/L	150		96.4	74-127			
Styrene	50.17	1.0	ug/L	50.0		100	66-126			
Bromoform	49.02	1.0	ug/L	50.0		98.0	68-130			
1,2,3-Trichloropropane	50.08	1.0	ug/L	50.0		100	63-136			
trans-1,4-Dichloro-2-butene	92.77	5.0	ug/L	103		90.2	54-134			
1,1,2,2-Tetrachloroethane	48.71	1.0	ug/L	50.0		97.4	61-131			
1,4-Dichlorobenzene	45.31	1.0	ug/L	50.0		90.6	70-129			
1,2-Dichlorobenzene	47.43	1.0	ug/L	50.0		94.9	69-126			
1,2-Dibromo-3-chloropropane	51.43	5.0	ug/L	50.0		103	50-143			
Surrogate: Dibromofluoromethane	*50.6*		ug/L	*50.2*		*101*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*50.4*		ug/L	*50.4*		*100*	*61-142*			
Surrogate: Toluene-d8	*50.3*		ug/L	*50.5*		*99.7*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*50.1*		ug/L	*50.2*		*99.9*	*80-116*			
LCS Dup (1HJ1047-BSD1)				Prepared: 10/16/24 00:00 Analyzed: 10/16/24 11:09						
Chloromethane	23.87	1.0	ug/L	30.0		79.6	63-155	3.86	24	
Vinyl Chloride	23.96	1.0	ug/L	30.0		79.9	70-154	2.92	25	
Bromomethane	24.72	1.0	ug/L	30.0		82.4	52-176	2.08	27	
Chloroethane	28.58	1.0	ug/L	30.0		95.3	72-148	2.45	25	
Trichlorofluoromethane	25.64	1.0	ug/L	30.0		85.5	70-152	4.09	26	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ1047 - EPA 5030B - EPA 8260B										
LCS Dup (1HJ1047-BSD1)			Prepared: 10/16/24 00:00 Analyzed: 10/16/24 11:09							
1,1-Dichloroethylene	46.16	1.0	ug/L	50.0		92.3	70-148	4.55	24	
Acetone	109.2	10.0	ug/L	101		108	43-172	13.0	30	
Methyl Iodide	102.4	1.0	ug/L	102		100	69-170	1.71	30	
Methylene Chloride	50.36	5.0	ug/L	50.0		101	68-142	0.968	21	
trans-1,2-Dichloroethylene	47.09	1.0	ug/L	50.0		94.2	66-148	3.55	27	
1,1-Dichloroethane	48.22	1.0	ug/L	50.0		96.4	66-143	1.42	24	
Vinyl Acetate	105.9	5.0	ug/L	100		106	43-153	0.893	30	
cis-1,2-Dichloroethylene	47.17	1.0	ug/L	50.0		94.3	71-149	2.10	26	
2-Butanone (MEK)	108.2	10.0	ug/L	102		106	52-159	12.8	27	
Bromochloromethane	46.92	1.0	ug/L	50.0		93.8	69-143	0.0639	23	
Chloroform	45.14	1.0	ug/L	50.0		90.3	69-144	1.39	23	
1,1,1-Trichloroethane	46.48	1.0	ug/L	50.0		93.0	62-129	3.43	24	
Carbon Tetrachloride	50.08	1.0	ug/L	50.0		100	63-141	1.70	25	
Benzene	45.09	1.0	ug/L	50.0		90.2	71-134	2.65	24	
1,2-Dichloroethane	45.75	1.0	ug/L	50.0		91.5	72-132	2.46	24	
Trichloroethylene	45.50	1.0	ug/L	50.0		91.0	71-135	2.52	24	
1,2-Dichloropropane	47.75	1.0	ug/L	50.0		95.5	69-136	1.10	24	
Dibromomethane	49.92	1.0	ug/L	50.0		99.8	73-147	0.599	25	
Bromodichloromethane	49.06	1.0	ug/L	50.0		98.1	68-129	0.387	22	
cis-1,3-Dichloropropene	46.54	1.0	ug/L	50.0		93.1	65-134	0.107	23	
4-Methyl-2-pentanone (MIBK)	103.9	5.0	ug/L	100		104	58-147	0.490	27	
Toluene	44.57	1.0	ug/L	50.0		89.1	72-133	1.96	24	
trans-1,3-Dichloropropene	48.10	1.0	ug/L	50.0		96.2	67-130	0.0416	24	
1,1,2-Trichloroethane	48.10	1.0	ug/L	50.0		96.2	69-135	0.456	23	
Tetrachloroethylene	45.13	1.0	ug/L	50.0		90.3	69-130	4.29	25	
2-Hexanone (MBK)	104.6	5.0	ug/L	99.3		105	55-144	0.676	25	
Dibromochloromethane	49.72	1.0	ug/L	50.0		99.4	73-127	0.464	22	
1,2-Dibromoethane	48.14	1.0	ug/L	50.0		96.3	67-132	0.146	24	
Chlorobenzene	45.20	1.0	ug/L	50.0		90.4	72-123	1.80	23	
1,1,1,2-Tetrachloroethane	48.03	1.0	ug/L	50.0		96.1	73-127	0.478	24	
Ethylbenzene	46.49	1.0	ug/L	50.0		93.0	71-127	1.83	26	
Xylenes, total	142.1	2.0	ug/L	150		94.7	74-127	1.80	25	
Styrene	49.55	1.0	ug/L	50.0		99.1	66-126	1.24	23	
Bromoform	49.66	1.0	ug/L	50.0		99.3	68-130	1.30	23	
1,2,3-Trichloropropane	50.22	1.0	ug/L	50.0		100	63-136	0.279	24	
trans-1,4-Dichloro-2-butene	91.02	5.0	ug/L	103		88.5	54-134	1.90	27	
1,1,2,2-Tetrachloroethane	49.11	1.0	ug/L	50.0		98.2	61-131	0.818	29	
1,4-Dichlorobenzene	44.92	1.0	ug/L	50.0		89.8	70-129	0.864	24	
1,2-Dichlorobenzene	47.12	1.0	ug/L	50.0		94.2	69-126	0.656	26	
1,2-Dibromo-3-chloropropane	52.66	5.0	ug/L	50.0		105	50-143	2.36	30	
Surrogate: Dibromofluoromethane	*50.8*		ug/L	*50.2*		*101*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*50.8*		ug/L	*50.4*		*101*	*61-142*			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ1047 - EPA 5030B - EPA 8260B										
LCS Dup (1HJ1047-BSD1)			Prepared: 10/16/24 00:00 Analyzed: 10/16/24 11:09							
Surrogate: Toluene-d8	*50.3*		ug/L	*50.5*		*99.6*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*50.4*		ug/L	*50.2*		*101*	*80-116*			
Matrix Spike (1HJ1047-MS1)	**Source: 1HJ1038-07**		Prepared: 10/16/24 00:00 Analyzed: 10/16/24 21:25							
Chloromethane	218.5	10.0	ug/L	300	ND	72.8	61-152			
Vinyl Chloride	237.9	10.0	ug/L	300	ND	79.3	66-149			
Bromomethane	198.6	10.0	ug/L	300	ND	66.2	43-171			
Chloroethane	278.0	10.0	ug/L	300	ND	92.7	69-148			
Trichlorofluoromethane	259.4	10.0	ug/L	300	ND	86.5	62-163			
1,1-Dichloroethylene	467.6	10.0	ug/L	500	ND	93.5	70-148			
Acetone	985.5	100	ug/L	1010	ND	97.4	45-173			
Methyl Iodide	984.6	10.0	ug/L	1020	ND	96.7	62-167			
Methylene Chloride	469.4	50.0	ug/L	500	ND	93.9	69-140			
trans-1,2-Dichloroethylene	453.2	10.0	ug/L	500	ND	90.6	69-144			
1,1-Dichloroethane	452.6	10.0	ug/L	500	ND	90.5	70-138			
Vinyl Acetate	962.0	50.0	ug/L	1000	ND	96.2	58-142			
cis-1,2-Dichloroethylene	438.6	10.0	ug/L	500	ND	87.7	68-151			
2-Butanone (MEK)	961.8	100	ug/L	1020	ND	94.5	50-160			
Bromochloromethane	438.4	10.0	ug/L	500	ND	87.7	65-143			
Chloroform	424.2	10.0	ug/L	500	ND	84.8	71-143			
1,1,1-Trichloroethane	456.9	10.0	ug/L	500	ND	91.4	63-133			
Carbon Tetrachloride	470.6	10.0	ug/L	500	ND	94.1	63-142			
Benzene	446.5	10.0	ug/L	500	ND	89.3	69-133			
1,2-Dichloroethane	447.3	10.0	ug/L	500	ND	89.5	63-138			
Trichloroethylene	453.6	10.0	ug/L	500	ND	90.7	71-133			
1,2-Dichloropropane	458.8	10.0	ug/L	500	ND	91.8	69-132			
Dibromomethane	479.6	10.0	ug/L	500	ND	95.9	70-147			
Bromodichloromethane	465.7	10.0	ug/L	500	ND	93.1	67-130			
cis-1,3-Dichloropropene	416.8	10.0	ug/L	500	ND	83.4	61-126			
4-Methyl-2-pentanone (MIBK)	1003	50.0	ug/L	1000	ND	100	55-147			
Toluene	438.0	10.0	ug/L	500	ND	87.6	71-133			
trans-1,3-Dichloropropene	437.1	10.0	ug/L	500	ND	87.4	63-124			
1,1,2-Trichloroethane	461.9	10.0	ug/L	500	ND	92.4	69-133			
Tetrachloroethylene	467.6	10.0	ug/L	500	ND	93.5	70-124			
2-Hexanone (MBK)	1035	50.0	ug/L	993	ND	104	53-141			
Dibromochloromethane	474.0	10.0	ug/L	500	ND	94.8	74-122			
1,2-Dibromoethane	467.7	10.0	ug/L	500	ND	93.5	66-127			
Chlorobenzene	452.1	10.0	ug/L	500	ND	90.4	76-116			
1,1,1,2-Tetrachloroethane	470.4	10.0	ug/L	500	ND	94.1	77-121			
Ethylbenzene	469.8	10.0	ug/L	500	ND	94.0	73-124			
Xylenes, total	1417	20.0	ug/L	1500	ND	94.5	75-123			
Styrene	488.1	10.0	ug/L	500	ND	97.6	70-120			
Bromoform	469.2	10.0	ug/L	500	ND	93.8	70-124			

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ1047 - EPA 5030B - EPA 8260B										
Matrix Spike (1HJ1047-MS1)	**Source: 1HJ1038-07**		Prepared: 10/16/24 00:00 Analyzed: 10/16/24 21:25							
1,2,3-Trichloropropane	490.2	10.0	ug/L	500	ND	98.0	62-135			
trans-1,4-Dichloro-2-butene	850.5	50.0	ug/L	1030	ND	82.7	50-120			
1,1,2,2-Tetrachloroethane	478.3	10.0	ug/L	500	ND	95.7	63-126			
1,4-Dichlorobenzene	440.6	10.0	ug/L	500	ND	88.1	72-119			
1,2-Dichlorobenzene	462.9	10.0	ug/L	500	ND	92.6	71-117			
1,2-Dibromo-3-chloropropane	503.8	50.0	ug/L	500	ND	101	49-134			
Surrogate: Dibromofluoromethane	*483*		ug/L	*502*		*96.3*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*485*		ug/L	*504*		*96.4*	*61-142*			
Surrogate: Toluene-d8	*494*		ug/L	*505*		*97.8*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*501*		ug/L	*502*		*99.9*	*80-116*			
Matrix Spike Dup (1HJ1047-MSD1)	**Source: 1HJ1038-07**		Prepared: 10/16/24 00:00 Analyzed: 10/16/24 21:48							
Chloromethane	216.2	10.0	ug/L	300	ND	72.1	61-152	1.06	26	
Vinyl Chloride	229.1	10.0	ug/L	300	ND	76.4	66-149	3.77	23	
Bromomethane	208.6	10.0	ug/L	300	ND	69.5	43-171	4.91	29	
Chloroethane	268.6	10.0	ug/L	300	ND	89.5	69-148	3.44	25	
Trichlorofluoromethane	252.6	10.0	ug/L	300	ND	84.2	62-163	2.66	25	
1,1-Dichloroethylene	445.8	10.0	ug/L	500	ND	89.2	70-148	4.77	22	
Acetone	928.2	100	ug/L	1010	ND	91.7	45-173	5.99	30	
Methyl Iodide	977.3	10.0	ug/L	1020	ND	95.9	62-167	0.744	24	
Methylene Chloride	460.3	50.0	ug/L	500	ND	92.1	69-140	1.96	19	
trans-1,2-Dichloroethylene	435.2	10.0	ug/L	500	ND	87.0	69-144	4.05	22	
1,1-Dichloroethane	440.3	10.0	ug/L	500	ND	88.1	70-138	2.76	20	
Vinyl Acetate	954.2	50.0	ug/L	1000	ND	95.4	58-142	0.814	24	
cis-1,2-Dichloroethylene	427.5	10.0	ug/L	500	ND	85.5	68-151	2.56	22	
2-Butanone (MEK)	929.3	100	ug/L	1020	ND	91.3	50-160	3.44	23	
Bromochloromethane	425.5	10.0	ug/L	500	ND	85.1	65-143	2.99	22	
Chloroform	412.0	10.0	ug/L	500	ND	82.4	71-143	2.92	21	
1,1,1-Trichloroethane	445.0	10.0	ug/L	500	ND	89.0	63-133	2.64	23	
Carbon Tetrachloride	460.6	10.0	ug/L	500	ND	92.1	63-142	2.15	22	
Benzene	434.0	10.0	ug/L	500	ND	86.8	69-133	2.84	18	
1,2-Dichloroethane	437.6	10.0	ug/L	500	ND	87.5	63-138	2.19	20	
Trichloroethylene	438.8	10.0	ug/L	500	ND	87.8	71-133	3.32	23	
1,2-Dichloropropane	451.3	10.0	ug/L	500	ND	90.3	69-132	1.65	20	
Dibromomethane	474.0	10.0	ug/L	500	ND	94.8	70-147	1.17	22	
Bromodichloromethane	458.3	10.0	ug/L	500	ND	91.7	67-130	1.60	21	
cis-1,3-Dichloropropene	411.7	10.0	ug/L	500	ND	82.3	61-126	1.23	21	
4-Methyl-2-pentanone (MIBK)	996.5	50.0	ug/L	1000	ND	99.6	55-147	0.630	23	
Toluene	428.4	10.0	ug/L	500	ND	85.7	71-133	2.22	19	
trans-1,3-Dichloropropene	432.0	10.0	ug/L	500	ND	86.4	63-124	1.17	21	
1,1,2-Trichloroethane	457.5	10.0	ug/L	500	ND	91.5	69-133	0.957	19	
Tetrachloroethylene	451.1	10.0	ug/L	500	ND	90.2	70-124	3.59	24	
2-Hexanone (MBK)	1017	50.0	ug/L	993	ND	102	53-141	1.72	24	

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ1047 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1HJ1047-MSD1)	**Source: 1HJ1038-07**		Prepared: 10/16/24 00:00 Analyzed: 10/16/24 21:48							
Dibromochloromethane	462.4	10.0	ug/L	500	ND	92.5	74-122	2.48	21	
1,2-Dibromoethane	462.5	10.0	ug/L	500	ND	92.5	66-127	1.12	23	
Chlorobenzene	431.6	10.0	ug/L	500	ND	86.3	76-116	4.64	21	
1,1,1,2-Tetrachloroethane	457.1	10.0	ug/L	500	ND	91.4	77-121	2.87	25	
Ethylbenzene	451.2	10.0	ug/L	500	ND	90.2	73-124	4.04	20	
Xylenes, total	1363	20.0	ug/L	1500	ND	90.9	75-123	3.88	20	
Styrene	472.2	10.0	ug/L	500	ND	94.4	70-120	3.31	23	
Bromoform	470.2	10.0	ug/L	500	ND	94.0	70-124	0.213	22	
1,2,3-Trichloropropane	485.3	10.0	ug/L	500	ND	97.1	62-135	1.00	28	
trans-1,4-Dichloro-2-butene	828.9	50.0	ug/L	1030	ND	80.6	50-120	2.57	26	
1,1,2,2-Tetrachloroethane	474.9	10.0	ug/L	500	ND	95.0	63-126	0.713	24	
1,4-Dichlorobenzene	429.9	10.0	ug/L	500	ND	86.0	72-119	2.46	24	
1,2-Dichlorobenzene	452.2	10.0	ug/L	500	ND	90.4	71-117	2.34	24	
1,2-Dibromo-3-chloropropane	501.4	50.0	ug/L	500	ND	100	49-134	0.478	28	
Surrogate: Dibromofluoromethane	*479*		ug/L	*502*		*95.4*	*75-136*			
Surrogate: 1,2-Dichloroethane-d4	*487*		ug/L	*504*		*96.7*	*61-142*			
Surrogate: Toluene-d8	*500*		ug/L	*505*		*99.0*	*82-121*			
Surrogate: 4-Bromofluorobenzene	*504*		ug/L	*502*		*100*	*80-116*			

Determination of Base/Neutral Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ0859 - 3520C BNA Cont Liq - EPA 8270C										
Blank (1HJ0859-BLK1)			Prepared: 10/15/24 11:12 Analyzed: 10/21/24 19:30							
Bis(2-Ethylhexyl) Phthalate	50.1	6	ug/L							B
Surrogate: Nitrobenzene-d5	*23.5*		ug/L	*30.8*		*76.2*	*20-149*			
Surrogate: 2-Fluorobiphenyl	*21.9*		ug/L	*29.3*		*74.8*	*11-146*			
Surrogate: Terphenyl-dl4	*28.0*		ug/L	*30.9*		*90.6*	*27-155*			
LCS (1HJ0859-BS1)			Prepared: 10/15/24 11:12 Analyzed: 10/21/24 19:54							
Bis(2-Ethylhexyl) Phthalate	23.0	6	ug/L	20.0		115	27-186			
Surrogate: Nitrobenzene-d5	*24.3*		ug/L	*30.8*		*78.7*	*31-137*			
Surrogate: 2-Fluorobiphenyl	*23.2*		ug/L	*29.3*		*79.1*	*29-131*			
Surrogate: Terphenyl-dl4	*29.3*		ug/L	*30.9*		*95.0*	*30-142*			
LCS Dup (1HJ0859-BSD1)			Prepared: 10/15/24 11:12 Analyzed: 10/21/24 20:19							
Bis(2-Ethylhexyl) Phthalate	22.8	6	ug/L	20.0		114	27-186	0.742	30	
Surrogate: Nitrobenzene-d5	*25.5*		ug/L	*30.8*		*82.6*	*31-137*			
Surrogate: 2-Fluorobiphenyl	*24.5*		ug/L	*29.3*		*83.7*	*29-131*			
Surrogate: Terphenyl-dl4	*27.7*		ug/L	*30.9*		*89.8*	*30-142*			

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ0795 - Wet Chem Preparation - 2320B										
Blank (1HJ0795-BLK1)			Prepared & Analyzed: 10/14/24 12:36							
Alkalinity, as CaCO3	<10	10	mg/L							
LCS (1HJ0795-BS1)			Prepared & Analyzed: 10/14/24 12:36							
Alkalinity, as CaCO3	50.3	10	mg/L	50.0		101	82-112			
Matrix Spike (1HJ0795-MS1)		**Source: 1HJ0795-04**	Prepared & Analyzed: 10/14/24 12:36							
Alkalinity, as CaCO3	210	10	mg/L	50.0	177	66.7	70-113			Q
Matrix Spike Dup (1HJ0795-MSD1)		**Source: 1HJ0795-04**	Prepared & Analyzed: 10/14/24 12:36							
Alkalinity, as CaCO3	211	10	mg/L	50.0	177	69.2	70-113	0.579	10	Q
Batch 1HJ0948 - Wet Chem Preparation - SM 4500 H+ B										
Duplicate (1HJ0948-DUP1)		**Source: 1HJ1025-01**	Prepared: 10/16/24 12:35 Analyzed: 10/16/24 13:05							
pH	9.0	0.5	pH		9.0			0.0670	10	
Reference (1HJ0948-SRM1)			Prepared: 10/16/24 12:35 Analyzed: 10/16/24 13:05							
pH	6.9	0.5	pH	7.00		98.6	98.6-101.4			
Reference (1HJ0948-SRM2)			Prepared: 10/16/24 12:35 Analyzed: 10/16/24 13:05							
pH	6.9	0.5	pH	7.00		98.6	98.6-101.4			

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ0766 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Blank (1HJ0766-BLK1)			Prepared: 10/14/24 07:57 Analyzed: 10/14/24 18:22							
Antimony, total	<0.0020	0.0020	mg/L							
Arsenic, total	<0.0040	0.0040	mg/L							
Barium, total	<0.0040	0.0040	mg/L							
Beryllium, total	<0.0040	0.0040	mg/L							
Cadmium, total	<0.0008	0.0008	mg/L							
Chromium, total	<0.0080	0.0080	mg/L							
Cobalt, total	<0.0004	0.0004	mg/L							
Copper, total	<0.0040	0.0040	mg/L							
Lead, total	<0.0040	0.0040	mg/L							
Nickel, total	<0.0040	0.0040	mg/L							
Selenium, total	<0.0040	0.0040	mg/L							
Silver, total	<0.0040	0.0040	mg/L							
Thallium, total	<0.0020	0.0020	mg/L							
Vanadium, total	<0.0200	0.0200	mg/L							
Zinc, total	<0.0200	0.0200	mg/L							
LCS (1HJ0766-BS1)			Prepared: 10/14/24 07:57 Analyzed: 10/14/24 18:28							
Antimony, total	0.0968	0.0020	mg/L	0.100		96.8	80-120			
Arsenic, total	0.0953	0.0040	mg/L	0.100		95.3	80-120			
Barium, total	0.106	0.0040	mg/L	0.100		106	80-120			

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ0766 - EPA 3005A Total Recoverable Metals - EPA 6020A										
LCS (1HJ0766-BS1)				Prepared: 10/14/24 07:57 Analyzed: 10/14/24 18:28						
Beryllium, total	0.101	0.0040	mg/L	0.100		101	80-120			
Cadmium, total	0.0958	0.0008	mg/L	0.100		95.8	80-120			
Chromium, total	0.0962	0.0080	mg/L	0.100		96.2	80-120			
Cobalt, total	0.0975	0.0004	mg/L	0.100		97.5	80-120			
Copper, total	0.0981	0.0040	mg/L	0.100		98.1	80-120			
Lead, total	0.0963	0.0040	mg/L	0.100		96.3	80-120			
Nickel, total	0.0984	0.0040	mg/L	0.100		98.4	80-120			
Selenium, total	0.0942	0.0040	mg/L	0.100		94.2	80-120			
Silver, total	0.0994	0.0040	mg/L	0.100		99.4	80-120			
Thallium, total	0.0860	0.0020	mg/L	0.100		86.0	80-120			
Vanadium, total	0.0965	0.0200	mg/L	0.100		96.5	80-120			
Zinc, total	0.0952	0.0200	mg/L	0.100		95.2	80-120			
Matrix Spike (1HJ0766-MS1)		**Source: 1HJ1038-01**		Prepared: 10/14/24 07:57 Analyzed: 10/14/24 18:40						
Antimony, total	0.0976	0.0020	mg/L	0.100	ND	97.6	75-125			
Arsenic, total	0.0994	0.0040	mg/L	0.100	ND	99.4	75-125			
Barium, total	0.357	0.0040	mg/L	0.100	0.253	105	75-125			
Beryllium, total	0.104	0.0040	mg/L	0.100	ND	104	75-125			
Cadmium, total	0.0937	0.0008	mg/L	0.100	0.0001	93.5	75-125			
Chromium, total	0.0953	0.0080	mg/L	0.100	0.0008	94.5	75-125			
Cobalt, total	0.0990	0.0004	mg/L	0.100	ND	99.0	75-125			
Copper, total	0.0951	0.0040	mg/L	0.100	0.0015	93.6	75-125			
Lead, total	0.0953	0.0040	mg/L	0.100	ND	95.3	75-125			
Nickel, total	0.0975	0.0040	mg/L	0.100	ND	97.5	75-125			
Selenium, total	0.0966	0.0040	mg/L	0.100	ND	96.6	75-125			
Silver, total	0.0981	0.0040	mg/L	0.100	ND	98.1	75-125			
Thallium, total	0.0878	0.0020	mg/L	0.100	0.0003	87.5	75-125			
Vanadium, total	0.100	0.0200	mg/L	0.100	ND	100	75-125			
Zinc, total	0.0972	0.0200	mg/L	0.100	ND	97.2	75-125			
Matrix Spike Dup (1HJ0766-MSD1)		**Source: 1HJ1038-01**		Prepared: 10/14/24 07:57 Analyzed: 10/14/24 18:47						
Antimony, total	0.0955	0.0020	mg/L	0.100	ND	95.5	75-125	2.17	20	
Arsenic, total	0.0959	0.0040	mg/L	0.100	ND	95.9	75-125	3.64	20	
Barium, total	0.357	0.0040	mg/L	0.100	0.253	105	75-125	0.0571	20	
Beryllium, total	0.100	0.0040	mg/L	0.100	ND	100	75-125	3.36	20	
Cadmium, total	0.0929	0.0008	mg/L	0.100	0.0001	92.8	75-125	0.789	20	
Chromium, total	0.0927	0.0080	mg/L	0.100	0.0008	91.9	75-125	2.73	20	
Cobalt, total	0.0985	0.0004	mg/L	0.100	ND	98.5	75-125	0.465	20	
Copper, total	0.0917	0.0040	mg/L	0.100	0.0015	90.2	75-125	3.63	20	
Lead, total	0.0934	0.0040	mg/L	0.100	ND	93.4	75-125	2.01	20	
Nickel, total	0.0959	0.0040	mg/L	0.100	ND	95.9	75-125	1.67	20	
Selenium, total	0.0878	0.0040	mg/L	0.100	ND	87.8	75-125	9.53	20	
Silver, total	0.0952	0.0040	mg/L	0.100	ND	95.2	75-125	2.95	20	
Thallium, total	0.0860	0.0020	mg/L	0.100	0.0003	85.7	75-125	2.07	20	
Vanadium, total	0.0993	0.0200	mg/L	0.100	ND	99.3	75-125	1.12	20	

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HJ0766 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Matrix Spike Dup (1HJ0766-MSD1)		**Source: 1HJ1038-01**		Prepared: 10/14/24 07:57 Analyzed: 10/14/24 18:47						
Zinc, total	0.0949	0.0200	mg/L	0.100	ND	94.9	75-125	2.45	20	
Post Spike (1HJ0766-PS1)		**Source: 1HJ1038-01**		Prepared: 10/14/24 07:57 Analyzed: 10/14/24 18:53						
Antimony, total	0.0785		mg/L	0.0800	0.0002	97.9	80-120			
Arsenic, total	0.0810		mg/L	0.0800	0.0008	100	80-120			
Barium, total	0.341		mg/L	0.0800	0.247	117	80-120			
Beryllium, total	0.0836		mg/L	0.0800	-0.000007	104	80-120			
Cadmium, total	0.0770		mg/L	0.0800	0.0001	96.1	80-120			
Chromium, total	0.0783		mg/L	0.0800	0.0008	96.9	80-120			
Cobalt, total	0.0839		mg/L	0.0800	0.00004	105	80-120			
Copper, total	0.0795		mg/L	0.0800	0.0015	97.5	80-120			
Lead, total	0.0795		mg/L	0.0800	0.000004	99.4	80-120			
Nickel, total	0.0823		mg/L	0.0800	0.0008	102	80-120			
Selenium, total	0.0759		mg/L	0.0800	-0.0001	94.9	80-120			
Silver, total	0.0818		mg/L	0.0800	0.00009	102	80-120			
Thallium, total	0.0727		mg/L	0.0800	0.0003	90.5	80-120			
Vanadium, total	0.0861		mg/L	0.0800	0.0028	104	80-120			
Zinc, total	0.0816		mg/L	0.0800	0.0067	93.6	80-120			

Batch Quality Control Summary: Microbac Laboratories Inc., - Marietta, OH

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4J1197 - 5021 - EPA RSK-175										
Blank (B4J1197-BLK1)				Prepared: 10/22/24 14:01 Analyzed: 10/22/24 14:37						
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							
LCS (B4J1197-BS1)				Prepared: 10/22/24 14:01 Analyzed: 10/22/24 14:50						
Methane	107	5.00	ug/L	114.1884		93.8	85-115			
Ethene	181	5.00	ug/L	199.6873		90.7	85-115			
Ethane	192	5.00	ug/L	213.9965		89.6	85-115			
Propane	271	5.00	ug/L	313.9185		86.3	85-115			
LCS Dup (B4J1197-BSD1)				Prepared: 10/22/24 14:01 Analyzed: 10/22/24 15:03						
Methane	110	5.00	ug/L	114.1884		96.3	85-115	2.65	40	
Ethene	184	5.00	ug/L	199.6873		92.3	85-115	1.74	40	
Ethane	195	5.00	ug/L	213.9965		91.0	85-115	1.51	40	
Propane	275	5.00	ug/L	313.9185		87.6	85-115	1.50	40	

Definitions

A8:	Sample was received in an improper container.
B:	The target analyte was detected in the blank at or above the method acceptance criteria.
B1:	The target analyte was detected in the method blank at or above the method acceptance criteria. The sample concentration is below 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.
M2:	Matrix spike recovery is below acceptance limits.
MDL:	Minimum Detection Limit
Q:	One or more quality control criteria failed.
R1:	Duplicate RPD is outside acceptance criteria.
RL:	Reporting Limit
RPD:	Relative Percent Difference

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 0.0°C

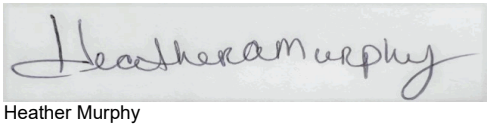
Cooler Inspection Checklist

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
10/28/24 15:52

CHAIN OF CUSTODY RECORD

MICROBAC®
600 East 17th Street South
Newton, IA 50208
641-792-8451

1HJ1038
HLW Engineering
PM: Heather Murphy

Page 1 of
Printed: 9/30/2024 2:51:05PM
www.keystonelabs.com

SITE INFORMATION
Sampler: TODD WHIPPLE
Project: Jones Co. Landfill - New Regs

REPORT TO
Todd Whipple
HLW Engineering
204 West Broad St
Story City, IA 50248

Karl Taylor
Jones County Solid Waste Management Co
PO Box 235
Anamosa, IA 52205

SPECIAL INSTRUCTIONS
None

Turn Around Time
☐ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY
Work Order 1HJ1038
Temperature 0.0
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 (up)	Aqueous	GRAB	10/8/24	9:54	7	lndfill-appl-voc-group lndfll-appl-metals-6020	01
-001	MW-6	Aqueous	GRAB	10/8/24	9:19	8	8270-110 * lndfll-appl-metals-6020 lndfill-appl-voc-group	02
-001	MW-11	Aqueous	GRAB	10/8/24	9:42	7	lndfill-appl-voc-group lndfll-appl-metals-6020	03
-001	MW-15	Aqueous	GRAB	10/8/24	8:35	12	alk-emco3-2320 lndfll-appl-voc-group lndfll-appl-metals-6020 permgas-rsk-175 ph-4500	04
-001	MW-16	Aqueous	GRAB	10/8/24	8:22	7	lndfill-appl-voc-group lndfll-appl-metals-6020	05
-001	MW-20	Aqueous	GRAB	10/8/24	8:57	7	lndfill-appl-voc-group lndfll-appl-metals-6020	06
-001	MW-22	Aqueous	GRAB	10/8/24	7:59	7	lndfill-appl-voc-group lndfll-appl-metals-6020	07
	DUPLICATE	Aqueous	Grab	10/8/24	✓	1	Indfill-App I metals 6020	08

Relinquished By: Todd Whipple Date/Time: 10/9/24
Relinquished By: Date/Time:
Received for Lab By: Date/Time: 10/9/2024 10:10 AM

Remarks: * DID NOT HAVE unpreserved glass amber container. I used clear glass jar.

Original - Lab Copy Yellow - Sampler Copy

Appendix D

Field Turbidity Summary

Jones County Sanitary Landfill

Field Turbidity Over Time

No-Purge Sampling

	4/20/15	7/9/15	10/5/15	4/5/16	10/5/16	4/4/17	10/3/17	4/10/18	10/12/18	4/16/19	9/30/19	12/20/19
Well	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**
6	36.3		18.47	2.31	3.93	2.14	4.39	1.01	3.00	1.14	1.41	
11	5.05		0.06	0.21	0.12	0.57	0.08	1.8	0.69	0.83	0.94	0.88
12	3.19	1.08	0.33	1.04	0.4	2.88	0.18	0.37	0.79	0.62	1.51	
15	53.1		0.61	3.45	72.1	27.63	2.58	16.92	2.6	13.41	6.76	
16	9.1		4.22	5.94	4.76	5.03	1.02	1.16	4.1	1.44	2.26	
20	3.91		0.78	0.23	0.17	0.39	0.16	0.41	0.65	0.48	0.86	
22	6.41		0.13	0.87	---	119.1	0.16	0.63	0.71	1.38	1.68	
Max	**53.10**	**1.08**	**18.47**	**5.94**	**72.10**	**119.10**	**4.39**	**16.92**	**4.10**	**13.41**	**6.76**	**0.88**
Min	**3.19**	**1.08**	**0.06**	**0.21**	**0.12**	**0.39**	**0.08**	**0.37**	**0.65**	**0.48**	**0.86**	**0.88**
Median	**6.41**	**1.08**	**0.61**	**1.04**	**2.17**	**2.88**	**0.18**	**1.01**	**0.79**	**1.14**	**1.51**	**0.88**
Average	**16.72**	**1.08**	**3.51**	**2.01**	**13.58**	**22.53**	**1.22**	**3.19**	**1.79**	**2.76**	**2.20**	**0.88**

Jones Co

Field Turbic

No-Purge S

	4/7/20	10/7/20	4/22/21	10/5/21	4/4/22	10/5/22	1/3/23	4/14/23	7/10/23	10/18/23	4/8/24	6/13/24
Well	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**	**NTU**
6	1.67	2.62	1.72	2.36	0.79	3.94		1.17		6.24	5.82	
11	0.81	1.1	0.88	1.21	1.2	1.05		0.84		2.9	1.67	
12	1.01	1.3	1.47	0.93	4.46	1.09		2.53		1.82	2.69	
15	8.8	2.08	4.29	11.18	9.64	2.07		11.33		1.91	8.02	
16	1.18	1.58	4.27	1.45	0.69	1.2	4.97	2.35		2.1	2.5	2.95
20	0.77	1.53	0.85	1.28	24.09	1.28		1.27		58.82	3.03	
22	31.48	1.31	0.98	1.74	1.4	5.94	13.9	1.23	1.46	1.51	2.54	
Max	**31.48**	**2.62**	**4.29**	**11.18**	**24.09**	**5.94**	**13.90**	**11.33**	**1.46**	**58.82**	**8.02**	**2.95**
Min	**0.77**	**1.10**	**0.85**	**0.93**	**0.69**	**1.05**	**4.97**	**0.84**	**1.46**	**1.51**	**1.67**	**2.95**
Median	**1.18**	**1.53**	**1.47**	**1.45**	**1.40**	**1.28**	**9.44**	**1.27**	**1.46**	**2.10**	**2.69**	**2.95**
Average	**6.53**	**1.65**	**2.07**	**2.88**	**6.04**	**2.37**	**9.44**	**2.96**	**1.46**	**10.76**	**3.75**	**2.95**

Jones Co

Field Turbic

No-Purge S

	10/8/24	Max	Min	Ave	Std Dev
Well	**NTU**				
6	3.36	**36.30**	**0.79**	**5.19**	**8.06**
11	3.11	**5.05**	**0.06**	**1.24**	**1.15**
12	2.00	**4.46**	**0.18**	**1.51**	**1.08**
15	2.79	**72.10**	**0.61**	**13.06**	**17.93**
16	3.21	**9.10**	**0.69**	**3.07**	**2.01**
20	2.4	**58.82**	**0.16**	**5.17**	**13.32**
22	2.83	**119.10**	**0.13**	**9.40**	**25.47**
Max	**3.36**				
Min	**2.00**				
Median	**2.83**				
Average	**2.81**				

Appendix E

Running Summary of Prediction Limit Exceedances

Spring 2014		**Fall 2014**	
MW-6**	Barium	MW-6**	Barium
	Bis (2-ethylhexyl)phthalate		Nickel
	Dichlorodifluoromethane		Zinc
			Dichlorodifluoromethane
MW-15**	Arsenic	MW-15**	Arsenic
	Barium		Barium
	Chromium		Cobalt
	Cobalt		Nickel
	Copper		1,4-dichlorobenzene
	Lead		Acetone
	Nickel		Benzene
	Zinc		Chlorobenzene
	1,4-dichlorobenzene		Chloroethane
	Benzene		Ethylbenzene
	Bis (2-ethylhexyl)phthalate		Xylenes
	Chlorobenzene		
	Chloroethane		
	Dichlorodifluoromethane		
	Ethylbenzene		
	Xylenes		

Spring 2015		**Fall 2015**	
MW-6**	Barium	MW-6**	Barium
	Cobalt		
	Dichlorodifluoromethane		
MW-15**	Arsenic	MW-15**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	Acetone		1,4-dichlorobenzene
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
	Chloroethane		Chloroethane
	Ethylbenzene		Xylenes
	Xylenes		Bis (2-ethylhexyl)phthalate

Spring 2016		**Fall 2016**	
MW-6**	Barium	MW-6**	Dichlorodifluoromethane
MW-15**	Arsenic	MW-15**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	1,4-dichlorobenzene		Selenium
	Benzene		1,4-dichlorobenzene
	Chlorobenzene		Acetone
	Chloroethane		Benzene

	Ethyl Benzene		Chlorobenzene
	Xylenes		Chloroethane
			Xylenes

Spring 2017		**Fall 2017**	
MW-6**	None	MW-6**	Barium
			Cobalt
			Nickel
			Bis(2-ethylhexyl)phthalate
MW-15**	Arsenic	MW-15**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	1,4-dichlorobenzene		Selenium
	Benzene		1,4-dichlorobenzene
	Chlorobenzene		Benzene
	Chloroethane		Chlorobenzene
	Dichlorodifluoromethane		Chloroethane
	Ethyl Benzene		Xylenes
	Xylenes		

Spring 2018		**Fall 2018**	
MW-6**	Barium	MW-6**	None
MW-15**	Arsenic	MW-15**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	1,4-dichlorobenzene		Benzene
	Benzene		Chlorobenzene
	Chlorobenzene		Chloroethane
	Chloroethane		Xylenes
	Ethyl Benzene		
	Xylenes		

Spring 2019		**Fall 2019**	
MW-6**	None	MW-6**	Barium
MW-15**	Arsenic	MW-15**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
	Chloroethane		Chloroethane
	Xylenes		Xylenes

Spring 2020		**Fall 2020**	
MW-6**	Cobalt	MW-6**	None
MW-15**	Arsenic	MW-15**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	1,4-dichlorobenzene		1,4-dichlorobenzene
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
	Chloroethane		Chloroethane
	Xylenes		Xylenes

Spring 2021		**Fall 2021**	
MW-6**	None	MW-6**	Barium
			Cadmium
			Cobalt
MW-15**	Arsenic	MW-15**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	1,4-dichlorobenzene		1,4-dichlorobenzene
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
	Chloroethane		Chloroethane
	Xylenes		

Spring 2022		**Fall 2022**	
MW-6**	Barium	MW-6**	Barium
			Cobalt
			Copper
MW-15**	Arsenic	MW-15**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	1,4-dichlorobenzene		1,4-dichlorobenzene
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
	Chloroethane		Chloroethane

*** Monitoring well is an Assessment or Supplemental monitoring point and water quality is compared to GWPS, rather than site prediction limits.*

Spring 2023		**Fall 2023**	
MW-6**	None	MW-6**	Barium
			Copper
MW-15**	Arsenic	MW-15**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	1,4-dichlorobenzene		1,4-dichlorobenzene
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
	Chloroethane		Chloroethane

*** Monitoring well is an Assessment or Supplemental monitoring point and water quality is compared to GWPS, rather than site prediction limits.*

Spring 2024		**Fall 2024**	
MW-6**	Bis(2-ethylhexyl)phthalate	MW-6**	Barium
MW-15**	Arsenic	MW-15**	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	1,1-dichloroethene		1,4-dichlorobenzene
	1,4-dichlorobenzene		Benzene
	Benzene		Chlorobenzene
	Chlorobenzene		Chloroethane
	Chloroethane		

*** Monitoring well is an Assessment or Supplemental monitoring point and water quality is compared to GWPS, rather than site prediction limits.*

Appendix F

Summary of On-Going Assessment Monitoring

Bis(2-ethylhexyl)phthalate (ug/L) ***GWPS = 6.0 ug/L***

Date	MW-6	MW-15	MW-22
3/6/2009	<8	<8	<8
4/1/2013	NT	**10.0**	NT
9/9/2013	NT	<10	NT
3/30/2014	**36.0**	**85.0**	NT
9/19/2014	NT	<10	NT
4/20/2015	<10	<10	NT
7/9/2015	<10	NT	NT
10/5/2015	<10	**10.0**	NT
4/5/2016	<10	<10	<10
10/5/2016	<10	<10	No Sample
4/4/2017	<10	<10	<10
10/3/2017	**10.0**	<6	<6
4/10/2018	<6	<6	NT
10/12/2018	<6	<6	NT
4/16/2019	<6	**10.0**	NT
9/30/2019	<6	<6	NT
4/7/2020	<6	<6	NT
10/7/2020	<6	<6	NT
4/22/2021	NT	NT	NT
10/5/2021	NT	NT	NT
4/4/2022	NT	NT	NT
10/5/2022	NT	NT	NT
4/14/2023	NT	NT	NT
10/18/2023	NT	NT	NT
4/8/2024	**32.0**	NT	NT
10/8/2024	<13	NT	NT

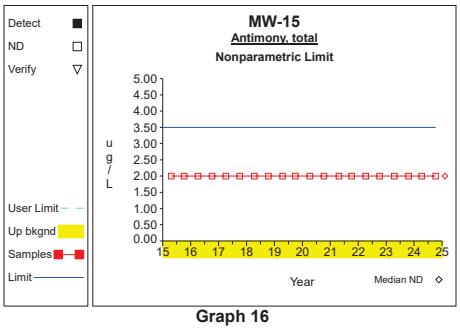
Dichlorodifluoromethane (ug/L) ***GWPS = 1,000.0 ug/L***

Date	MW-6	MW-15	MW-22
3/6/2009	<1	<1	<1
4/1/2013	NT	<1	NT
9/9/2013	NT	NT	NT
3/30/2014	**3.5**	**2.5**	NT
9/19/2014	**1.3**	<1	NT
4/20/2015	**1.0**	<1	NT
7/9/2015	NT	NT	NT
10/5/2015	<1	<1	NT
4/5/2016	<1	<1	<1
10/5/2016	**1.0**	<1	No Sample
4/4/2017	<1	**1.0**	<1
10/3/2017	<1	<1	<1
4/10/2018	<1	<1	NT
10/12/2018	<1	<1	NT
4/16/2019	<1	<1	NT
9/30/2019	<1	<1	NT
4/7/2020	<1	<1	NT
10/7/2020	<1	<1	NT
4/22/2021	NT	NT	NT
10/5/2021	NT	NT	NT
4/4/2022	NT	NT	NT
10/5/2022	NT	NT	NT
4/14/2023	NT	NT	NT
10/18/2023	NT	NT	NT
4/4/2024	<1	NT	NT
10/8/2024	NT	NT	NT

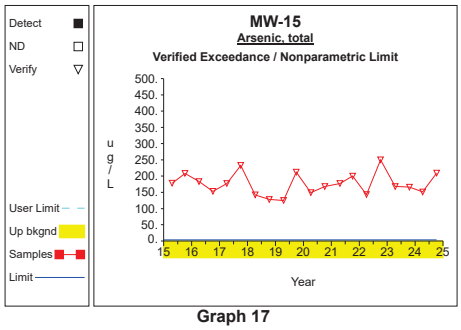
Appendix G

Time Series Plots – MW-15

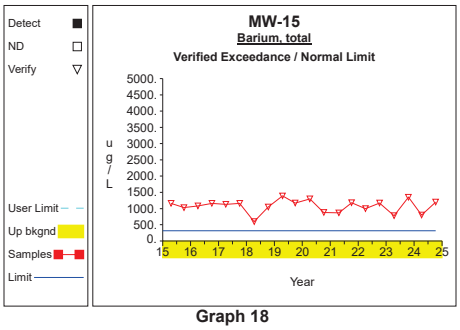
Up vs. Down Prediction Limits



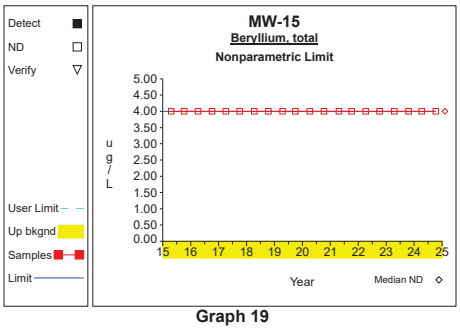
Graph 16



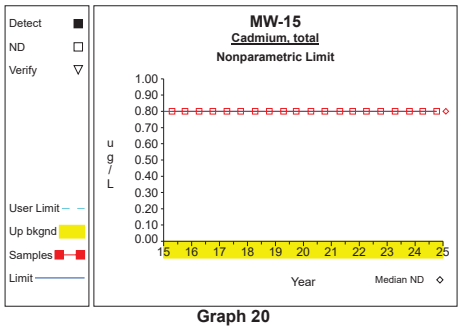
Graph 17



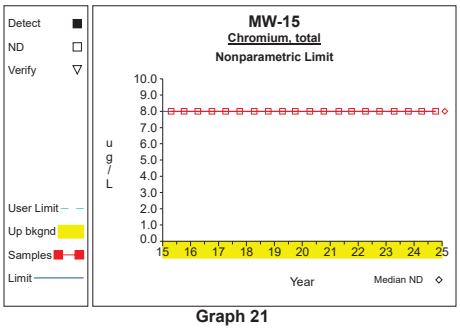
Graph 18



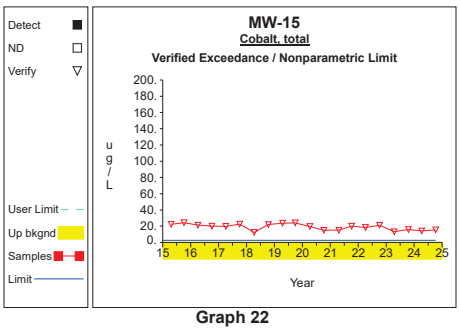
Graph 19



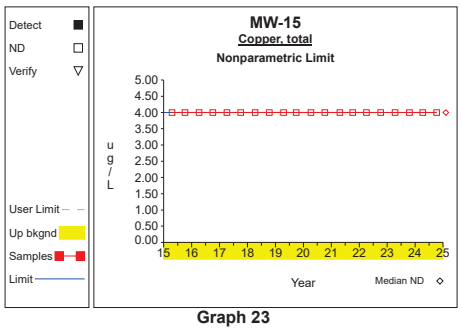
Graph 20



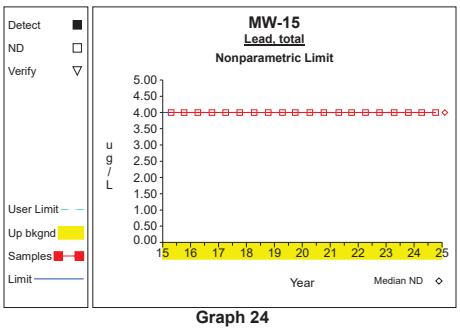
Graph 21



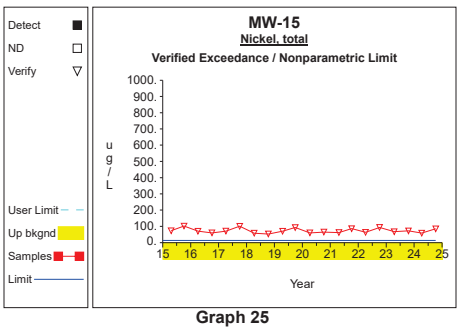
Graph 22



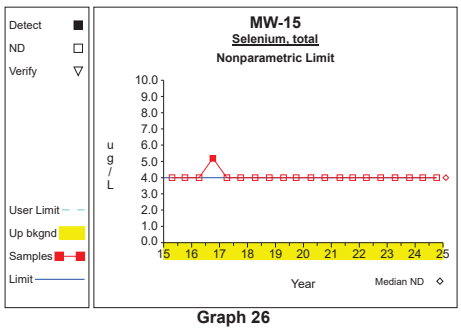
Graph 23



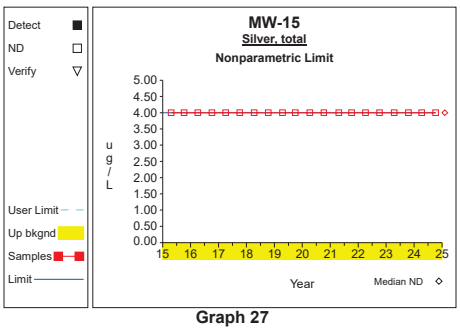
Graph 24



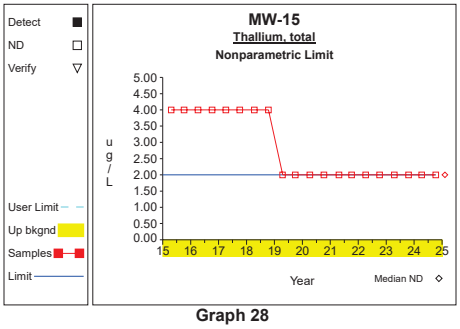
Graph 25



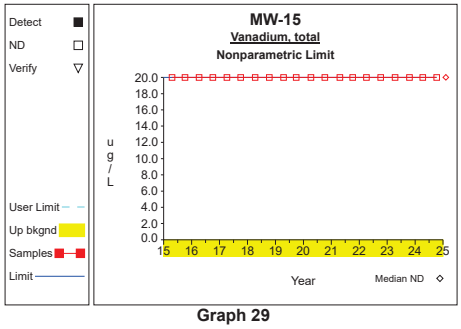
Graph 26



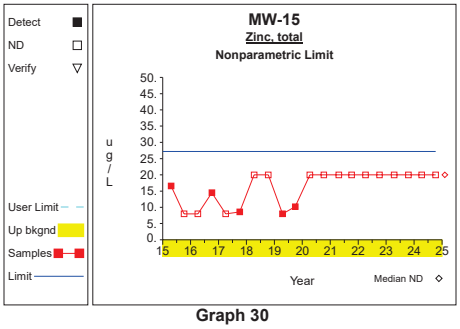
Graph 27



Graph 28



Graph 29



Graph 30

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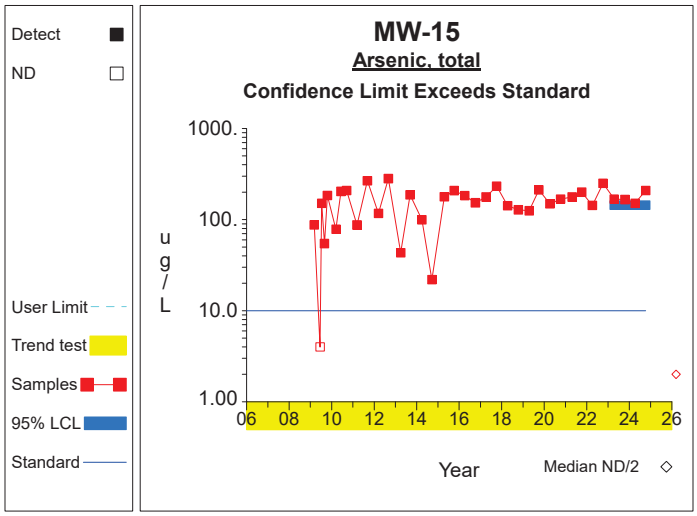
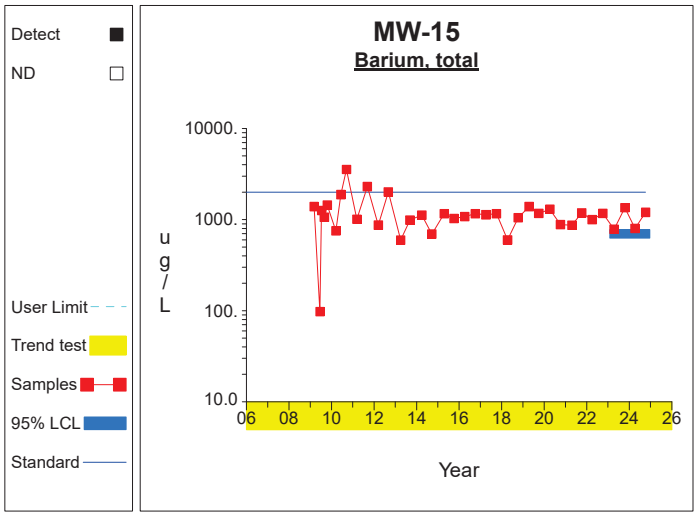
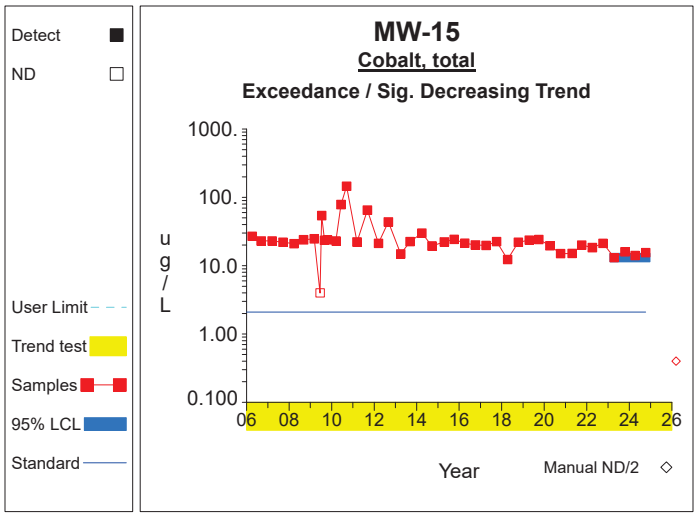
Confidence Limits (Assessment)



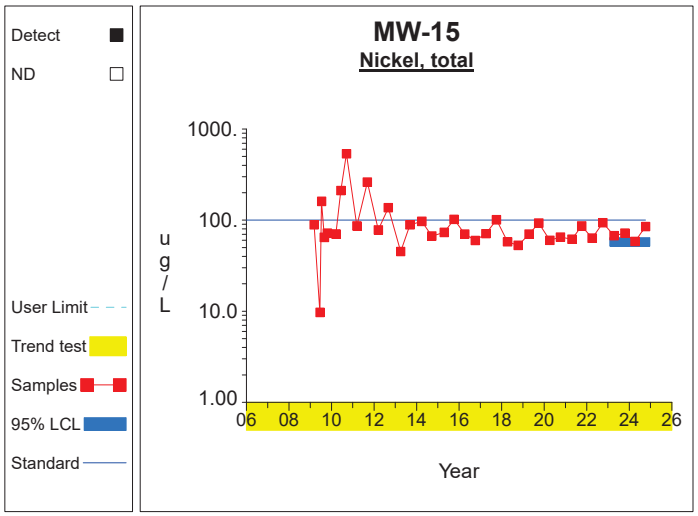
Graph 1



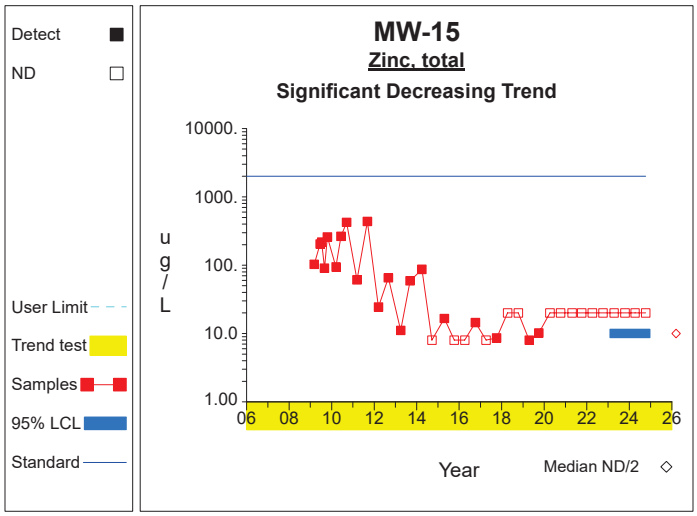
Graph 2



Graph 3



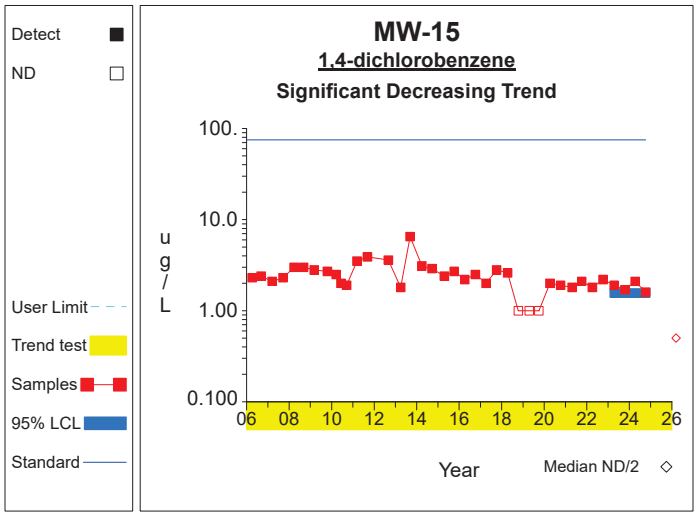
Graph 4



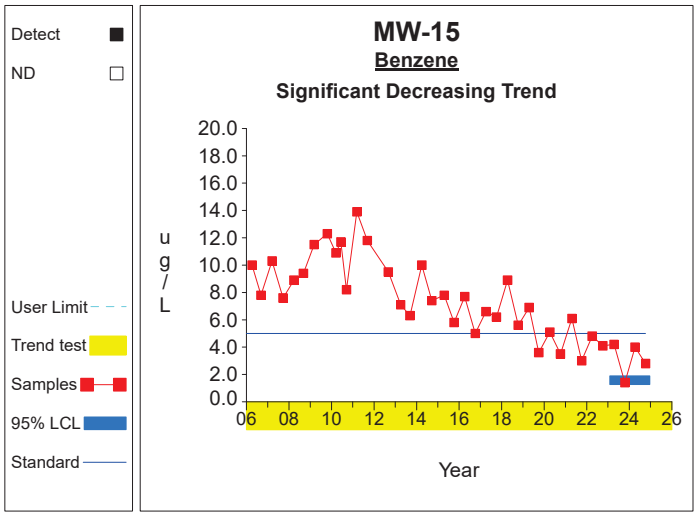
Graph 5

Prepared by: Otter Creek Environmental

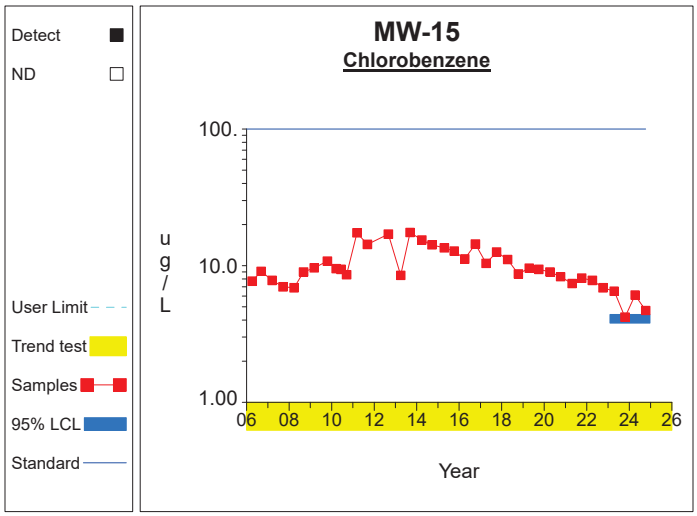
Confidence Limits (Assessment)



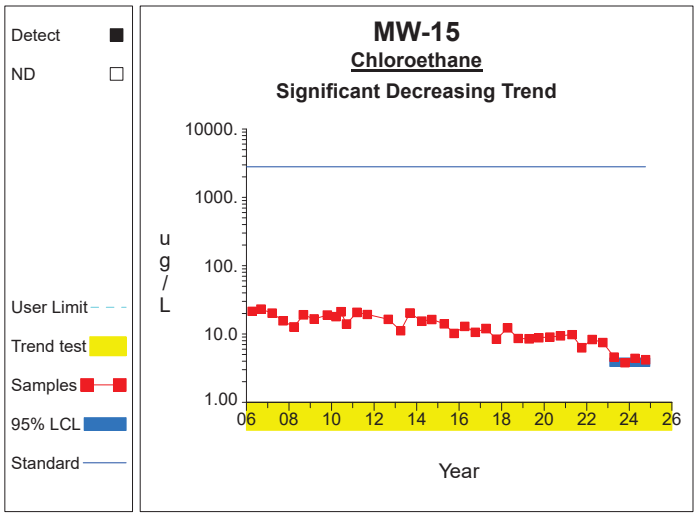
Graph 1



Graph 2



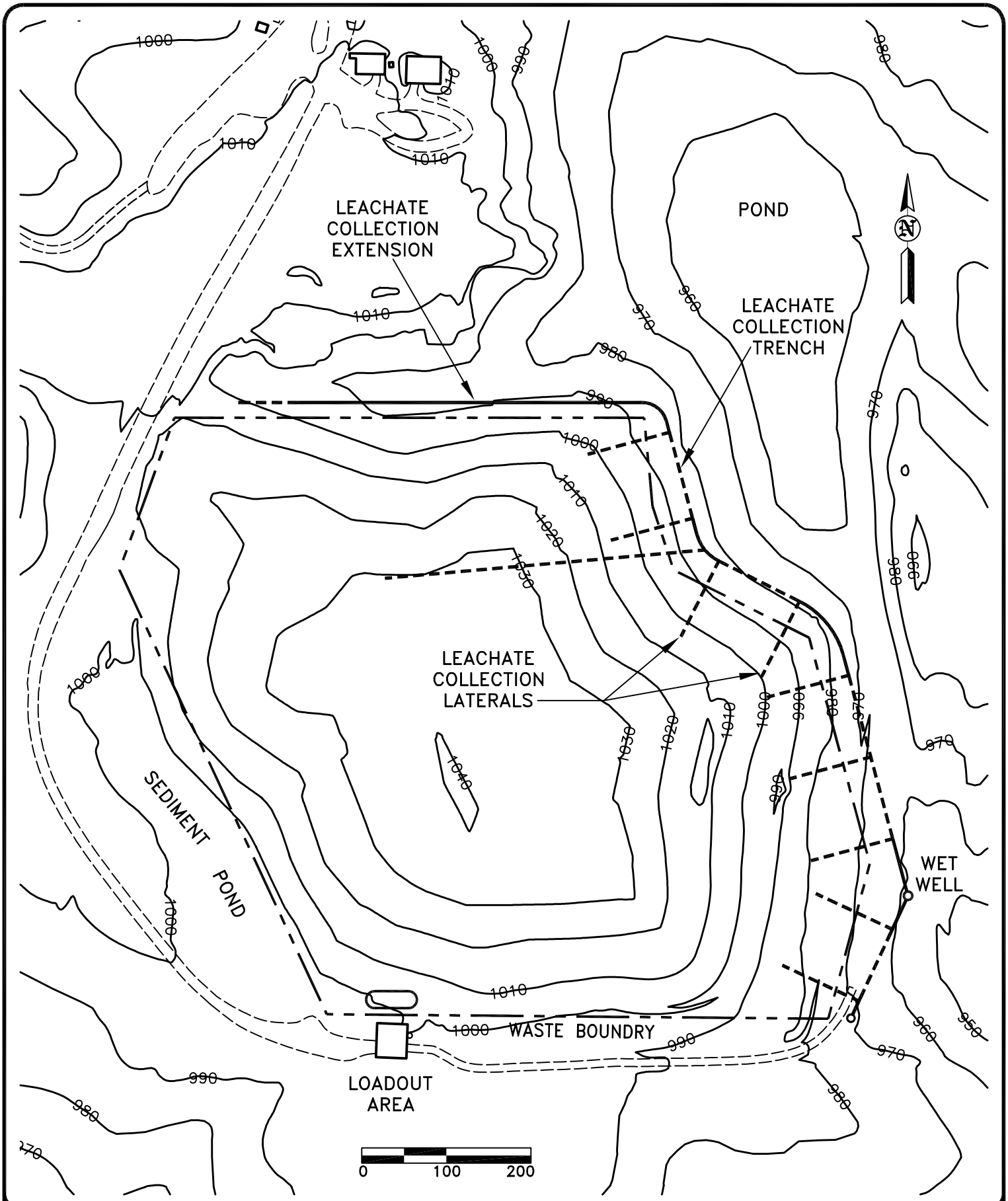
Graph 3



Graph 4

Appendix H

Leachate Collection System Map



HLW
HLW Engineering Group

LEACHATE COLLECTION EXTENSION

JONES COUNTY SANITARY LANDFILL
ANAMOSA, IOWA

FIGURE: 1

REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6038	DATE 1–17–16