# 2024 ANNUAL GROUNDWATER QUALITY REPORT

# FOR THE
# PAGE COUNTY SANITARY LANDFILL
# 73-SDP-01-75P
# CLARINDA, IOWA

**by:**
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**January, 2025**

HLW Engineering Group
*Engineering* *Management*

**6047-23A.320**

# Table of Contents

# Certification

Prepared by:  Date: 1-22-2025

Typed: Todd Whipple, CPG

# Section 1.0 Background Information

1.1 Report Format

Table 1 through Table 12 are attached to this report and satisfy the IDNR requirement to provide the tables to meet the IDNR format requirements included in Special Provision 4.k. of the Permit, dated August 20, 2024 (Doc #110726).

1.2 Report Priority

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

1.3 Period of Report Coverage

Water quality data evaluation is based on a running compilation of data beginning in September, 2014. Statistical evaluations herein are based on the most recent water quality data collected November 25, 2024.

1.4 Current Site Map

Figure 1 is attached illustrating the current site features, monitoring well locations, and subsurface gas probe locations.

1.5 Site Status and Applicable Rules

**Site Location**

The Page County Sanitary Landfill is located in the S½ of the NW¼ and the SW¼ of Section 28, T69N, R37W, Page County, Iowa. The site encompasses approximately 216 acres. The facility is situated north of Highway 2. The facility operates under the Iowa Department of Natural Resources (IDNR) Permit Number 73-SDP-1-75P.

The site is generally described as being developed in pre-Illinoian Pleistocene glacial till that is overlying Pennsylvanian age bedrock. Information from the Iowa Geologic Survey Bureau indicates the till is over 100 ft thick consisting of clay rich sediments with interbedded deposits of sand and gravel. The uppermost bedrock unit consists of cyclic shale and limestone sequences which, as a whole, is typically over 1,000 feet thick (James M. Montgomery HIR 1990).

**Landfill Layout**

The site is situated in the uplands south of a tributary to Snake Creek.

As illustrated in Figure 1, the site is described as the original 80-acre parcel. The original 80-acre parcel was divided into the East Landfill, the West Landfill, and the West Expansion Area. A horizontal expansion was approved September 20, 2005 consisting of a RCRA Subtitle D alternate liner in between the West and East Landfills. Phases 1-5 are subsequent RCRA Subtitle D composite liner expansions.

The recently approved West Expansion Area Phase W-1 abuts the Original Landfill on the west side. Construction activities associated with development in the Expansion Area Phase W-1 were completed in early August of 2024 and waste placement was initiated after approved by IDNR in the Permit, dated August 20, 2024 (Doc #110726).

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

1.6 Summary of Hydrologic Monitoring System Plan (HMSP)

The HMSP includes upgradient monitoring points MW-44 and MW-17. There are eleven (11) downgradient monitoring wells designated MW-1d, MW-3, MW-7, MW-10, MW-13, MW-14, MW-16, MW-18, MW-19, MW-20, and MW-53. There are also four (4) downgradient groundwater diversion underdrain designated GU-1, GU-2, GU-3, and GU-4. GU-2 and GU-4 are underdrains below the east lagoon and the west lagoon, respectively.

Note that MW-1 was moved from the background system to the downgradient assessment monitoring system in 2023 and is now designated MW-1d. Existing MW-44, located in the future South Expansion Area was added to the background system to replace MW-1.

MW-14 also serves as a downgradient monitoring point to the east leachate storage lagoon on the site. MW-53 also serves as a downgradient monitoring point to the west leachate storage lagoon on the site. The current HMSP is summarized in Table 1. The HMSP Implementation Schedule for 2025 is itemized in Table 2.

MW-11 was plugged April 3, 2023 (Doc #108594).

## 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.

*Hydrologic Monitoring System Plan (HMSP) Updates*
Upon completion of the Phase W-1 Expansion in the West Expansion Area the following monitoring points were added to the HMSP:

MW-53 – Downgradient well below the Phase W-1 Expansion and West Lagoon
GU-3 – Groundwater Underdrain below the Phase W-1 Expansion
GU-4 – Groundwater Underdrain below the West Lagoon

*High & Low Water Levels*
Current year water elevation data is included on Table 4. Historic water elevation data (2017-2024) is included in the Table 4A. A Water Table Contour Map (Figure 2) dated September, 2024 is included with this report and illustrates the water table surface and the effects of the topography.

Review of the 2024 water elevation data does not indicate any remarkable water elevation conditions.

*Well Depth & Sedimentation*
Well depth measurements were made September 25, 2024. Review of the well depth data included on Table 4 indicate that well sedimentation is estimated to be less than one (1) foot at all site monitoring wells.

*Well Recharge Rates & Chemistry*
The most recent measured horizontal hydraulic conductivity testing results (2004, 2020, 2023, and 2024) for site monitoring wells are included on Table 4. Horizontal hydraulic conductivities ranged between $10^{-5}$ cm/sec and $10^{-6}$ cm/sec.

Field recovery data recorded on March 18, 2024 (also on Table 4) indicates that the monitoring wells recover to at least 90% recovery within 3 to 24 hours after purging. The exception is at MW-13 where more than 24 hours was required for the well to recover. 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.

# Section 2.0 Reporting Period Monitoring Activities

A summary of the planned 2025 sample collection events at each well is included on Table 2. A comprehensive summary of sampling episodes from 2018 to present is included in Table 2A.

Field sampling information for March 18, 2024; August 1, 2024, September 25, 2024; and November 25, 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 September 17, 2014 and September 25, 2024 is included on Table 9.

## 2.1 Current Detection Monitoring Activities

Background wells are currently MW-44 and MW-17.

Downgradient monitoring points include MW-1d, MW-3, MW-7, MW-10, MW-13, MW-14, MW-16, MW-18, MW-19, MW-20, MW-53, GU-1, GU-2, GU-3, and GU-4.

MW-13, MW-14, MW-17, MW-53, GU-1, GU-2, GU-3, and GU-4 remain in the detection monitoring system.

Note that the August 1, 2024 samples collected at MW-53, GU-3, and GU-4 were collected prior to deposition of any waste in the Phase W-1 Expansion Area. The underdrain tile lines (GU-1, GU-2, GU-3, and GU-4) will be evaluated by intrawell statistical evaluation methods once the minimum number of data points (8 points in the background) are available (estimated 2028).

2.2 Current Assessment Monitoring Activities

MW-1d, MW-3, MW-7, MW-10, MW-16, and MW-19 are in the assessment monitoring system. A five (5) year frequency for full Appendix II sampling was approved in Special Provision X.4.h of the Permit, dated August 20, 2024 (Doc #110726).

Two (2) rounds of full Appendix II sampling are completed at MW-3, MW-7, MW-10, MW-16, MW-18, MW-19, and MW-20. The first round of full Appendix II sampling is completed at MW-1d. The next full Appendix II sample collection event is scheduled to occur at MW-1d in March, 2025 (Table 2).

2.3 Current Corrective Action Activities

MW-18 and MW-20 are in the corrective action monitoring system related to elevated arsenic concentration.

Assessment of Corrective Measures (ACM) has not yet been initiated.

MW-18 (2009) is positioned hydraulically upgradient of MW-16 (1993). MW-16 has monitored the performance of the apparent attenuation zone near MW-18. MW-16 has not recorded a Statistically Significant Level (SSL) over the course of time (1993 to present).

MW-20 is located in the Expansion Area to the west of the active site. The Expansion Area will abut the Original Landfill along the west side. Construction activities associated with development in the Expansion Area to the west commenced in 2024. Development of the Expansion Area will likely benefit water quality near MW-20.

# 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 Page County Sanitary Landfill, First Semi-Annual Monitoring Event in 2024, dated April 2024 is included in Appendix B.1. The Groundwater Statistics Report for the Page 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 on samples collected March 18, 2024; August 1, 2024, September 25, 2024; and November 25, 2024 are included in Appendix C.

**QUALITY ASSURANCE/QUALITY CONTROL**

A blind duplicate sample was collected at MW-18 during the March 18, 2024 sampling episode. A blind duplicate sample was collected at MW-16 during the September 25, 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 March 18, 2024 and September 25, 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 # 80692). A TSS and Field Turbidity Evaluation Report was prepared and submitted on December 12, 2017 (Doc# 91110) and was approved by IDNR on December 27, 2017 (Doc #91168). A summary table of field measured turbidity is included in Appendix D.

The background data utilized herein has been restricted to include only sample results that have been collected by "No Purge" methods in order to avoid turbidity related issues that may have been associated with historic sample collection methods. No-purge sampling has been performed at the facility beginning with the September 17, 2014 sampling episode.

Upgradient Data, Table 1, Attachment B, to the October, 2024 Statistical Evaluation Report (Appendix B.2) includes a summary of the most current background data. Any water quality results tagged with an asterisk is a statistical outlier and is excluded from use in calculating the Prediction Limits. The calculated Prediction Limits are summarized on Table 5.

## SITE SPECIFIC GWPS

Review of the information included on Table 5 indicates that the prediction limit for cobalt (30.6 ug/L) calculated from the background data exceeds the published IAC 567, Chapter 137 Statewide

Standard (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 limits for cobalt (30.6 ug/L) is utilized as the Site-Specific GWPS. 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 Reporting Level, any VOC detection is recorded as an SSI. Table 6 is a summary of all compounds at site monitoring wells that have exceeded a *current* prediction limit in 2024.

The August 1, 2024 samples collected at MW-53, GU-3, and GU-4 were collected prior to deposition of any waste in the Phase W-1 Expansion Area. It is noted that barium, cobalt, nickel, selenium, and zinc are detected at GU-3 prior to waste acceptance. Similarly, barium, nickel, and zinc are detected at GU-4 prior to waste acceptance. The water quality at GU-3 and GU-4 will be evaluated by intrawell statistical evaluation methods, rather than comparing the underdrain discharges to the background well information.

Wells that are currently included in the assessment monitoring system or the corrective action monitoring system (MW-1d, MW-3, MW-7, MW-10, MW-16, MW-18, MW-19, and MW-20). Table 7 includes an on-going summary of compound detections that exceed the prediction limits (highlighted in light brown).

Exceedances of the Prediction Limit at a well that is in the assessment monitoring system 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. A running summary of recorded Prediction Limit exceedances by year since 2018 is included in Appendix E.

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

## ASSESSMENT MONITORING SUMMARY

A five (5) year frequency for full Appendix II sampling was approved in Special Provision X.4.h of the Permit, dated August 20, 2024 (Doc #110726).

Two (2) rounds of full Appendix II sampling are completed at MW-3, MW-7, MW-10, MW-16, MW-18, MW-19, and MW-20. The first round of full Appendix II monitoring at MW-1d was completed September 7, 2023. The second round of full Appendix II monitoring at MW-1d is scheduled for March, 2025.

The on-going supplemental sampling includes Appendix I plus all detected Appendix II compounds per 113.10(6)b.2. Compounds detected to date beyond the Appendix I list are limited to dichlorodifluoromethane and bis(2-ethylhexyl) phthalate.

The summary of assessment monitoring detections 2014 to date is presented in Appendix F. The full Appendix II sampling episodes are highlighted in green in the tables in Appendix F.

Based on the results to date, dichlorodifluoromethane and bis (2-ethylhexyl) phthalate will continue to be monitored as appropriate to findings during assessment monitoring episodes at assessment monitoring wells (see Table 2).

## STATISTICALLY SIGNIFICANT LEVELS (SSL)

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

The SSL Evaluation is based on data collected since September 17, 2014. 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. The yellow highlights in Table 7 indicate an exceedance of the GWPS.

The findings indicate that the following compounds are Statistically Significant Levels (SLL) at the following monitoring wells:

| | |
|---|---|
| MW-18 | Arsenic |
| MW-20 | Arsenic & Barium |

## ASSESSMENT OF CORRECTIVE MEASURES (ACM)

MW-18 (arsenic) and MW-20 (arsenic and barium) have demonstrated elevated concentrations since prior to 2014.

As illustrated on Groundwater Contour Map (Figure 2), MW-18 (constructed 2009) is located in a position that is both hydraulically downgradient from the waste mass and hydraulically upgradient from existing MW-16 (constructed 1993). As demonstrated in Table 7 for MW-16

and MW-18, the arsenic concentrations are greatly diminished between the initial detection at MW-18 and the subsequent detection at downgradient well MW-16. Based on the recognition that the impact area is restricted and that the arsenic is attenuated in the region between MW-18 and MW-16, ongoing arsenic monitoring has been implemented. The results of the monitoring over time support the interpretation that the ACM can continue to be suspended while the monitoring is ongoing.

It has been recognized for many years the upcoming development of the landfill expansion area to the west of the Original Landfill will add beneficial control to the shallow groundwater flow in the vicinity of MW-20. The planned landfill development in the Expansion Area will include groundwater diversion systems under each future landfill cell. Further, the planned development in the Expansion Area has converted the existing (1997 era) leachate cut-off and collection system along the west side of the closed area to from a pumped sump system to an unrestricted gravity flow system with the construction of the leachate holding lagoon along the west property boundary. A copy of the Cell and Infrastructure Layout Plan for the Expansion Area Project to the west of the operating landfill is included in Appendix G. Construction of the first cell and the leachate lagoon was completed in early August, 2024.

**CORRECTIVE MEASURES MONITORING**

The Confidence Interval of Corrective Action Monitoring points are utilized to determine the success of the on-going Corrective Measures. A Corrective Action is complete when the 95% UCL value at all points within the plume are below the applicable GWPS for a minimum of three (3) years.

The 95% UCL evaluations for MW-18 and MW-20 are presented in Table 8. The green highlights in Table 8 indicate the 95% UCL values that exceed the GWPS.

Table 10 represent summary of the recorded SSI and SSL over time at MW-18 and MW-20. Table 11 includes the evaluation of the corrective action trends over time at MW-18 and MW-20.

The results indicate that the 95% UCL for arsenic at Corrective Action Monitoring Point MW-18 remains above the GWPS and that MW-18 should remain in the Corrective Action Monitoring Plan.

The results indicate that the 95% UCL for arsenic and barium at the Corrective Action Monitoring Point MW-20 remain above the GWPS and that MW-20 should remain in the Corrective Action Monitoring Plan.

# Section 4.0 Leachate Collection System Performance Evaluation

The Page County Sanitary Landfill initially was constructed as a trench type fill. An area fill method is now being used as documented in the previously approved design plans.

The first Leachate Control Plan for this site was completed in 1990. In 1993, further evaluation included the installation of leachate monitoring piezometers in each of the filled trenches. The October 1993 Montgomery Watson report *Leachate Extraction Testing Results and Waste Area Characterization for the Page County Sanitary Landfill* shows the locations of all the trenches and piezometers. A total of 38 piezometers were installed most of which have now been abandoned and removed.

The Page County Sanitary Landfill Leachate Control Plan was submitted to IDNR in April 1995. IDNR approval to construct the system was received August 1995. Construction began during the fall of 1995 and was completed during May 1996. As-built plans were submitted and approved by IDNR in December 1996.

Following approval of a new design, the *4.5-Acre New Cell* included an additional leachate collection system along with a groundwater dewatering system and an approved alternative liner. The first phase of this approved Subtitle D cell was completed in September 2005 and was approved for waste disposal in an IDNR letter dated September 30, 2005.

In 2007, a ½ acre abutment clay-liner was installed adjacent to the north end of the Subtitle D cell. A 1.3-acre FML composite abutment liner was constructed in October 2008 on the northeast slope. During the summer of 2010, an additional FML composite liner was installed over existing waste on the south end of the old ravine and is the new Phase 1. During 2012, Phase 2 was constructed over previously deposited waste in the southeast corner of the landfill. Leachate generated in this cell flows into Phase 1 for collection.

Phase 3 was constructed in 2013. Phases 4 and 5 were completed in 2016. With the construction of Phase 4 and 5, LPZ-40 was removed, and LPZ-41 was installed for measuring the leachate on the new Subtitle D cell liners.

The Phase W-1 expansion was completed in 2024. The Phase W-1 project included construction of a new leachate storage lagoon (West Lagoon) with a freeboard storage capacity of approximately 630,150 gallons and a new leachate loadout station. The leachate collection line in Phase W-1 gravity flows to the West Lagoon. All collection lines from Phase 3, 4, and 5 gravity flow to a leachate pump station where accumulated leachate is pumped to the new leachate conveyance system installed during the Phase W-1 Expansion project and conveyed to the West Lagoon for storage. The East Lagoon (freeboard capacity of approximately 498,500 gallons) is being maintained on site as a backup. The leachate storage tanks (10,000-gallon storage tank and 20,000-gallon storage tank) and the associated leachate loadout station have been removed.

Special Provision X.5. of the Permit, dated August 20, 2024 (Doc #110726) approves the recirculation of leachate over composite lined landfill cells. There was no leachate recirculated in 2024.

Between January 1, 2024, and December 31, 2024, approximately 780,000 gallons of leachate were hauled to treatment at a nearby municipal WWTP. A summary of the leachate volume hauled by month is included in Appendix H.1.

Treatment Agreements are in place with Coin, Iowa; Shenandoah, Iowa; and Clarinda, Iowa for treatment of leachate. Copies of the Treatment Agreements are included in Appendix H.2. A "Routine Inspection of Industrial Pretreatment Facility" related to the treatment agreements was conducted by IDNR Field Office #4 on December 19, 2024.

As required by the treatment agreements with the Cities of Coin, Shenandoah, and Clarinda leachate is tested monthly for BOD, total suspended solids, and ammonia nitrogen; and annually for a more comprehensive list of constituents. A summary of testing (Table H1) and copies of the Monthly Laboratory Reports are included in Appendix H.3. A copy of the Annual Testing Results is included in Appendix H.4.

*Leachate Line Cleaning*

IAC 567-113.7(5)b(5) requires that the leachate system be cleaned every three (3) years at a minimum. The leachate gravity collection lines were cleaned in April 2023. All leachate lines should be cleaned again in 2026 in accordance with regulations.

*Leachate Level Monitoring*

The September 5, 2024 IDNR Letter requires biennial monitoring of the leachate piezometers in the unlined areas at LPZ-1, LPZ-24, LPZ-25, LPZ-29, LPZ-33, and LPZ-36 (Doc #110837).

Monitoring of the leachate piezometers in the lined Subtitle D cells (LPZ-39 and LPZ-41) is conducted monthly. Table H2 in Appendix H.5 provides the summary of the 2024 measurements.

*Original Landfill LCSPE*

Piezometers that continue to be functional and are monitored biennially are LPZ-1, LPZ-24, LPZ-25, LPZ-29, LPZ-33, and LPZ-36. Note MW-38 was removed during the Phase W-1 Expansion project in 2024.

The reported level measurements in the piezometers monitoring the unlined and non-Subtitle D areas have stabilized and do not vary significantly over the course of time. The retrofitted leachate collection system is functioning satisfactorily.

*Subtitle D Landfill Areas LCSPE – RCRA Landfill*

LPZ-39 and LPZ-41 serve as the required points to monitoring the leachate head on the lined Subtitle D cells.

The 2024 level measurements in LPZ-39 indicate minimal liquid thickness (normally less than 2 inches). The measurements in LPZ-41 also indicate a leachate thickness of less than 2 inches. Measurements did not exceed one foot of leachate thickness over the liner. The Subtitle D leachate systems are functioning and maintaining the leachate head below one foot.

Separation of the base of waste and the groundwater table is evaluated through observation of groundwater elevation measurements collected from groundwater piezometers GPZ-1. Groundwater head measurements are required semiannually in accordance with the SDP Permit with the measurements included on Table 4. Based on the groundwater head data presented in Table 4, separation is maintained between the base of the solid waste and the groundwater surface. No changes are recommended.

*Subtitle D Landfill Areas LCSPE – Phase W-1*

LPZ-2 serves as the required points to monitor the leachate head on the lined Subtitle D cell Phase W-1.

The 2024 level measurements in LPZ-2 (starting September 2024) indicate minimal liquid thickness (normally less than 2 inches). Measurements did not exceed one foot of leachate thickness over the liner. The Subtitle D leachate system in Phase W-1 is functioning and maintaining the leachate head below one foot.

Separation of the base of waste and the groundwater table is evaluated through observation of groundwater elevation measurements collected from groundwater piezometers GPZ-2. Groundwater head measurements are required semiannually in accordance with the SDP Permit with the measurements included on Table 4. Based on the groundwater head data presented in Table 4, separation is maintained between the base of the solid waste and the groundwater surface. No changes are recommended.

# Section 5.0 Gas Monitoring

Explosive gas monitoring per 113.9(2) and the approved GMSP in Special Provision X.6. of the Permit, dated August 20, 2024 (Doc #110726) was conducted quarterly during the last reporting period (2024). The monitoring includes indoor ambient air monitoring in buildings and subsurface monitoring in dedicated gas probes and underdrain tile lines.

Monitoring points currently include four (4) buildings, six (6) subsurface gas probes, and four (4) underdrain pipe ends. Figure 1 & Figure 2 illustrate the monitoring points.

GP-1 is located in the utility line in the northwest corner of the site. GP-2 is located east of the recycling building. GP-3 is located on the southwest corner of the site near MW-11. GP-4 is located on the southeast corner of the site near MW-17. MW-15 is approved to serve as an adequate gas monitoring location on the northeast side and has been designated as GP-5. GP-5A exists as a step-out monitoring point to GP-5. GP-5A is installed about 1½ feet from the east property/fence line and approximately 61 feet from GP-5.

As a result of detecting methane gas at GP-5 (MW15), the notification of a detection was submitted to IDNR and Field Office #4 on July 24, 2012. A *Methane Gas Remediation Plan* was submitted September 10, 2012. MW-15 (GP-5) was installed too close to the deposited waste and in silty-sandy soils. Step-out gas probe GP-5A was installed December 13, 2012.

Gas is periodically detected in GP-5 (MW-15). No gas has ever been detected in the step-out probe (GP-5A).

Explosive gas concentrations (%LEL) were undetected *or* were below action levels during the monitoring episodes, or additional actions are not warranted at GP-5. A summary table of gas monitoring is included as Table 12.

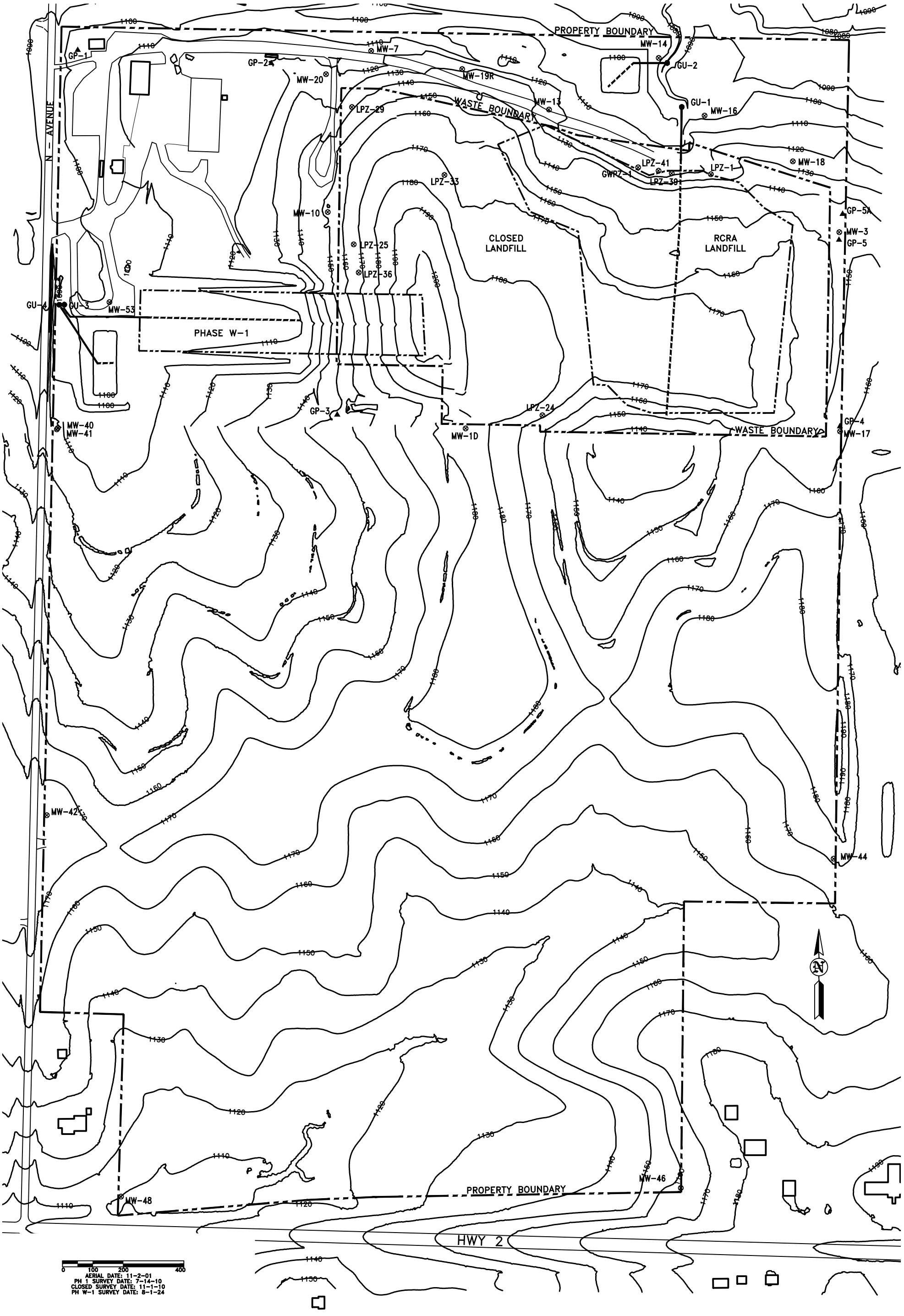
# Section 6.0 Recommendations

It is recommended that the detection monitoring, assessment monitoring, and corrective action monitoring continue to be performed on a semi-annual basis at the monitoring points listed in Table 1 and Table 2.

It is recommended that the prediction limits for cobalt (30.6 ug/L) be utilized as the Site-Specific GWPS. For all other compounds, it is recommended that the published IAC 567, Chapter 137 Statewide Standard be utilized as the GWPS.

It is recommended that detection monitoring continue semi-annually at GU-1, GU-2, GU-3, and GU-4. Upon completion of eight (8) rounds of background at GU-1, GU-2, GU-3, and GU-4 intrawell statistical evaluation of the groundwater should be performed following each sample collection and reporting event.

# Figures

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# SITE PLAN – TOTAL PROPERTY

PAGE COUNTY SANITARY LANDFILL
CLARINDA, IOWA

FIGURE: 1

| REVISION | NO. | DATE |
|---|---|---|
| DRAWN DRA | PROJECT NO. 6047 | DATE 12–16–24 |

PROPERTY BOUNDARY
WASTE BOUNDARY
WASTE BOUNDARY
N - AVENUE
PHASE W-1
CLOSED LANDFILL
RCRA LANDFILL
GP-1
GP-2
GP-3
GP-4
GP-5
GP-5A
MW-7
MW-10
MW-13
MW-14
MW-16
MW-17
MW-18
MW-19R
MW-20
MW-1D
MW-3
MW-40
MW-41
MW-53
LPZ-24
LPZ-25
LPZ-29
LPZ-33
LPZ-36
LPZ-39
LPZ-41
GWPZ-1
LPZ-1
GU-1
GU-2
GU-3
GU-4

0 100 200 400

AERIAL DATE: 11-2-01
PH 1 SURVEY DATE: 7-14-10
CLOSED SURVEY DATE: 11-1-10
PH W-1 SURVEY DATE: 8-1-24

FIGURE: 2

| REVISION | NO. | DATE |
|---|---|---|
| DRAWN DRA | PROJECT NO. 6047 | DATE 12-16-24 |

SITE PLAN - LANDFILL AREA

PAGE COUNTY SANITARY LANDFILL
CLARINDA, IOWA

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# GROUNDWATER CONTOURS

PAGE COUNTY SANITARY LANDFILL
CLARINDA, IOWA

FIGURE: 3

| REVISION | NO. | DATE |
|---|---|---|
| DRAWN DRA | PROJECT NO. 6047 | DATE 12-16-24 |

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HLW Engineering Group

PROPERTY BOUNDARY
WASTE BOUNDARY
WASTE BOUNDARY
PHASE W-1
CLOSED LANDFILL
RCRA LANDFILL

MW-7
MW-20
MW-19R
MW-13
MW-14
MW-16
MW-18
MW-3
MW-17
MW-1D
MW-10
MW-53
LPZ-29
LPZ-33
LPZ-25
LPZ-36
LPZ-24
LPZ-1
LPZ-41
LPZ-39
GWPZ-1

| 2024 WATER ELEVATIONS | | | |
|---|---|---|---|
| WELL | ELEV. | WELL | ELEV. |
| MW-1D | 1165.30 | MW-53 | 1088.65 |
| MW-3 | 1124.08 | LPZ-1 | 1102.27 |
| MW-7 | 1098.52 | LPZ-24 | 1146.68 |
| MW-10 | 1119.79 | LPZ-25 | 1150.50 |
| MW-13 | 1110.27 | LPZ-29 | 1124.21 |
| MW-14 | 1080.55 | LPZ-33 | 1146.21 |
| MW-16 | 1085.68 | LPZ-36 | 1152.66 |
| MW-17 | 1141.23 | LPZ-39 | 1107.09 |
| MW-18 | 1112.72 | LPZ-41 | 1105.85 |
| MW-19R | 1111.21 | GWPZ-1 | 1104.47 |
| MW-20 | 1104.35 | | |

NOTES:
MW ELEVATIONS TAKEN SEPTEMBER 25, 2024. LPZ ELEVATIONS TAKEN JULY 8, 2023. ELEVATION FOR GWPZ-1 IS THE BOTTOM OF A DRY WELL.

0 100 200 400

AERIAL DATE: 11-2-01
PH 1 SURVEY DATE: 7-14-10
CLOSED SURVEY DATE: 11-1-10
PH W-1 SURVEY DATE: 8-1-24

N

# Tables
# (in IDNR Format)

Table Index

Table 1 – Monitoring Program Summary

**Table 1**
**Monitoring Program Summary**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| Monitoring Well | Formation | Current Monitoring Program | Change for next sampling event | Historic - Constituents w/ SSI | Spring 2024 - Constituents w/ SSI | Fall 2024 - Constituents w/ SSI | Historic - Constituents w/ SSL | Spring 2024 - Constituents w/ SSL | Fall 2024 - Constituents w/ SSL | Total # of Samples in each monitoring program since October 15, 2014 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Detection | Assessment | Corrective Action |
| MW-1 | Glacial Till | Background through 2022 | NC | None | None | None | None | None | None | 17 | 0 | 0 |
| MW-17 | Glacial Till | Background | NC | None | None | None | None | None | None | 21 | 0 | 0 |
| MW-44 | Glacial Till | Background | NC | None | None | None | None | None | None | 3 | 0 | 0 |
| MW-1d | Glacial Till | Assessment | NC | **barium, benzene, chlorobenzene, chloroethane** | **barium, benzene, chlorobenzene, chloroethane** | None | None | None | None | 0 | 4 | 0 |
| MW-3 | Glacial Till | Assessment | NC | **copper, selenium, bis(2ethylhexyl)phthlate** | None | None | None | None | None | 0 | 21 | 0 |
| MW-7 | Glacial Till | Assessment | NC | **arsenic, benzene, bis(2ethylhexyl)phthlate** | None | **arsenic** | None | None | None | 0 | 21 | 0 |
| MW-10 | Glacial Till | Assessment | NC | **arsenic, barium, zinc, acetone, benzene, bis(2-ethylhexyl)phthlate** | None | None | None | None | None | 0 | 21 | 0 |
| MW-13 | Glacial Till | Detection | NC | None | None | None | None | None | None | 21 | 0 | 0 |
| MW-14 | Glacial Till | Detection | NC | None | None | None | None | None | None | 21 | 0 | 0 |
| MW-16 | Glacial Till | Assessment | NC | **arsenic, barium, 1,1-dichloroethane, 1,2-dichloropropane, 1,4-dichlorobenzene, benzene, chlorobenzene, cis-1,2-dichloroethylene, dichlorodifluoromethane, vinyl chloride** | **arsenic, 1,1-dichloroethane, 1,4-dichlorobenzene, benzene, chlorobenzene** | **arsenic, chlorobenzene** | None | None | None | 0 | 21 | 0 |
| MW-18 | Glacial Till | Corrective Action | NC | **arsenic, barium, zinc** | **arsenic** | **arsenic** | **arsenic** | **arsenic** | **arsenic** | 0 | 0 | 21 |
| MW-19 | Glacial Till | Assessment | NC | **1,1-dichloroethane, acetone, benzene, chloroethane, cis-1,2-dichloroethylene, vinyl chloride** | **1,1-dichloroethane, cis-1,2-dichloroethylene** | **1,1-dichloroethane, cis-1,2-dichloroethylene** | None | None | None | 0 | 21 | 0 |
| MW-20 | Glacial Till | Corrective Action | NC | **arsenic, barium, zinc, acetone, benzene, bis(2-ethylhexyl)phthalate, chlorobenzene, chloroethane** | **arsenic, barium, benzene, chlorobenzene, chloroethane** | **arsenic, barium, benzene, chlorobenzene** | **arsenic, barium** | **arsenic, barium** | **arsenic, barium** | 0 | 0 | 21 |
| MW-53 | Glacial Till | Detection | NC | None | None | None | None | None | None | 2 | 0 | 0 |
| GWD-1 | Glacial Till | Detection | NC | None | None | None | None | None | None | 21 | 0 | 0 |
| GWD-2 | Glacial Till | Detection | NC | None | None | None | None | None | None | 0 | 0 | 0 |
| GWD-3 | Glacial Till | Detection | NC | None | None | None | None | None | None | 2 | 0 | 0 |
| GWD-4 | Glacial Till | Detection | NC | None | None | None | None | None | None | 2 | 0 | 0 |

Table 2 – Monitoring Program Implementation Schedule

**Table 2**
**Monitoring Program Implementation Schedule**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| Monitoring Well | Recent Sampling Dates and Constituents | Upcoming Sampling Dates and Constituents | | Full Appendix II Sample Dates | |
|---|---|---|---|---|---|
| | | March, 2025 | September, 2025 | Previously Collected | Next Event |
| | | | | | |
| MW-17 (background) | | Appendix I | Appendix I | | N/A |
| MW-44 (background) | | Appendix I | Appendix I | | |
| MW-1d | | **Appendix II** | Appendix I | 9/7/2023 | 2025 |
| MW-3 | **See Table 2A** | Appendix I | Appendix I | 9/1/2016, 9/16/2021 | 2026 |
| MW-7 | | Appendix I | Appendix I | 3/25/2021, 9/1/2022 | 2027 |
| MW-10 | | Appendix I[(1)] | Appendix I[(1)] | 9/6/2018, 9/26/2019, 9/25/2024 | 2029 |
| MW-13 | | Appendix I | Appendix I | | |
| MW-14 | | Appendix I | Appendix I | | |
| MW-16 | | Appendix I | Appendix I | 9/1/2016, 9/16/2021 | 2026 |
| MW-18 | | Appendix I | Appendix I | 9/1/2016, 9/16/2021 | 2026 |
| MW-19 | | Appendix I | Appendix I | 3/21/2017, 3/16/2022 | 2027 |
| MW-20 | | Appendix I | Appendix I | 9/1/2016, 9/16/2021 | 2026 |
| MW-53 | | Appendix I | Appendix I | | |
| GWD-1 | | Appendix I | Appendix I | | |
| GWD-2 | | Appendix I | Appendix I | | |
| GWD-3 | | Appendix I | Appendix I | | |
| GWD-4 | | Appendix I | Appendix I | | |
| | | | | | |

(1) = bis(2-ethylhexyl)phthalate

Table 2A – Summary of Testing to Data

**Table 2A** -- Itemized Summary of Hydrologic Monitoring (2018-present)

| WELL | 1/12/2018 | 3/9/2018 | 9/6/2018 | 12/18/2018 |
|---|---|---|---|---|
| MW-1 (b) | | Appendix I | Appendix I | |
| MW-17 (b) | | Appendix I | Appendix I | |
| MW-3 | R - Se | Appendix I | Appendix I | R - Se |
| MW-7 | | Appendix I | Appendix I | |
| MW-10 | | Appendix I | **Appendix II** | |
| MW-11 | | Appendix I | Appendix I | |
| MW-13 | R - Se | Appendix I | Appendix I | |
| MW-14 | | Appendix I | Appendix I | R - Pb |
| MW-16 | R - Ba | Appendix I[(1)] | Appendix I[(1)] | |
| MW-18 | R - VOC | Appendix I | Appendix I | |
| MW-19 | | Appendix I | Appendix I | |
| MW-20 | | Appendix I | Appendix I | |
| GU-1 | | Appendix I | Appendix I | |
| Duplicate | | At GU-1 | At MW-10 | |

(1) Appendix I plus dichlorodifluoromethane
(2) Appendix I plus bis(2ethylhexyl)phthalate

(R) = Resample

| WELL | 3/7/2019 | 9/26/2019 | 12/17/2019 |
|---|---|---|---|
| MW-1 (b) | Appendix I | Appendix I | |
| MW-17 (b) | Appendix I | Appendix I | |
| MW-3 | Appendix I | Appendix I | |
| MW-7 | Appendix I | Appendix I | R - As |
| MW-10 | Appendix I[(2)] | **Appendix II** | |
| MW-11 | Appendix I | Appendix I | |
| MW-13 | Appendix I | Appendix I | |
| MW-14 | Appendix I | Appendix I | |
| MW-16 | Appendix I[(1)] | Appendix I[(1)] | |
| MW-18 | Appendix I | Appendix I | |
| MW-19 | Appendix I | Appendix I | |
| MW-20 | Appendix I | Appendix I | |
| GU-1 | Appendix I | Appendix I | |
| Duplicate | At MW-10 | At MW-17 | |

(1) Appendix I plus dichlorodifluoromethane
(2) Appendix I plus bis(2ethylhexyl)phthalate

(R) = Resample

| WELL | 4/2/2020 | 9/17/2020 | 12/5/2020 |
|---|---|---|---|
| MW-1 (b) | Appendix I | Appendix I | |
| MW-17 (b) | Appendix I | Appendix I | |
| MW-3 | Appendix I | Appendix I | |
| MW-7 | Appendix I | Appendix I | R - As |
| MW-10 | Appendix I[(2)] | Appendix I[(2)] | |
| MW-11 | Appendix I | Appendix I | |
| MW-13 | Appendix I | Appendix I | |
| MW-14 | Appendix I | Appendix I | |
| MW-16 | Appendix I[(1)] | Appendix I[(1)] | |
| MW-18 | Appendix I | Appendix I | |
| MW-19 | Appendix I | Appendix I | |
| MW-20 | Appendix I | Appendix I | |
| GU-1 | Appendix I | Appendix I | |
| Duplicate | At MW-3 | At MW-18 | |

(1) Appendix I plus dichlorodifluoromethane
(2) Appendix I plus bis(2ethylhexyl)phthalate

(R) = Resample

| WELL | 3/25/2021 | 6/3/2021 | 9/16/2021 | 12/8/2021 |
|---|---|---|---|---|
| MW-1 (b) | Appendix I | R – benzene, chloroethane | Appendix I | R - TCE |
| MW-17 (b) | Appendix I | | Appendix I | |
| MW-3 | Appendix I | | **Appendix II** | |
| MW-7 | **Appendix II** | Appendix I[(3)] | Appendix I | |
| MW-10 | Appendix I[(2)] | | Appendix I[(2)] | |
| MW-11 | Appendix I | | Appendix I | |
| MW-13 | Appendix I | | Appendix I | |
| MW-14 | Appendix I | | Appendix I | |
| MW-16 | Appendix I | | **Appendix II** | |
| MW-18 | Appendix I | | **Appendix II** | |
| MW-19 | Appendix I | | Appendix I | |
| MW-20 | Appendix I | | **Appendix II** | |
| GU-1 | Appendix I | | *IDNR Study* | |
| Duplicate | At MW-14 | | At MW-3 | |

(1) Appendix I plus dichlorodifluoromethane
(2) Appendix I plus bis(2ethylhexyl)phthalate
(3) 1,1-dichloropropene & 2,4,5 T

(R) = Resample
IDNR Study = Pilot Underdrain Study by NPDES

| WELL | 3/16/2022 | 6/14/2022 | 9/1/2022 | 11/29/2022 |
|---|---|---|---|---|
| MW-1 (b) | Appendix I | R - benzene | Appendix I | |
| MW-17 (b) | Appendix I | | Appendix I | |
| MW-3 | Appendix I[(2)] | | Appendix I | |
| MW-7 | Appendix I | | **Appendix II** | |
| MW-10 | Appendix I | | Appendix I | |
| MW-11 | Appendix I | | Appendix I | |
| MW-13 | Appendix I | | Appendix I | |
| MW-14 | Appendix I | | Appendix I | R - cd |
| MW-16 | Appendix I | | Appendix I | |
| MW-18 | Appendix I | | Appendix I | |
| MW-19 | Appendix I | | **Appendix II** | |
| MW-20 | Appendix I[(2)] | | Appendix I[(2)] | |
| GU-1 | Appendix I | | Appendix I | |
| Duplicate | At MW-17 | | At MW-18 | |

(1) Appendix I plus dichlorodifluoromethane (R) = Resample
(2) Appendix I plus bis(2ethylhexyl)phthalate

| WELL | 3/24/2023 | 5/9/2023 | 9/7/2023 | 11/13/2023 |
|---|---|---|---|---|
| MW-1d | Appendix I | R - benzene | **Appendix II** | |
| MW-17 (b) | Appendix I | | Appendix I | |
| MW-3 | Appendix I | | Appendix I | |
| MW-7 | Appendix I[(1)] | | Appendix I | |
| MW-10 | Appendix I | | Appendix I | |
| MW-11 | Appendix I | | Appendix I | |
| MW-13 | Appendix I | | Appendix I | |
| MW-14 | Appendix I | | Appendix I | |
| MW-16 | Appendix I | | Appendix I | |
| MW-18 | Appendix I | | Appendix I | |
| MW-19 | Appendix I | | Appendix I | |
| MW-20 | Appendix I | | Appendix I | |
| GU-1 | Appendix I | | --- | Dry |
| MW-44 (b) | --- | | --- | Appendix I |
| MW-53 | *pending* | | *pending* | |
| Duplicate | At MW-3 | | At MW-20 | |

(1) (Appendix I plus bis(2ethylhexyl)phthalate (R) = Resample

| WELL | 3/18/2024 | 8/1/2024 | 9/25/2024 | 11/25/2024 |
|---|---|---|---|---|
| MW-1d | Appendix I | | Appendix I | |
| MW-17 (b) | Appendix I | | Appendix I | |
| MW-3 | Appendix I | | Appendix I | |
| MW-7 | Appendix I | | Appendix I | |
| MW-10 | Appendix I | | **Appendix II** | |
| MW-11 | Appendix I | | Appendix I | |
| MW-13 | Appendix I | | Appendix I | |
| MW-14 | Appendix I | | Appendix I | R - Cd |
| MW-16 | Appendix I | | Appendix I | |
| MW-18 | Appendix I | | Appendix I | |
| MW-19 | Appendix I | | --- | |
| MW-19R | --- | | --- | Appendix I |
| MW-20 | Appendix I | | Appendix I | |
| MW-44 (b) | Appendix I | | --- | Appendix I |
| MW-53 | *pending* | Appendix I | Appendix I | |
| GU-1 | Appendix I | | Dry | Appendix I |
| GU-2 | Dry | | Dry | |
| GU-3 | *pending* | Appendix I | Appendix I | |
| GU-4 | *pending* | Appendix I | Appendix I | R - Zn |
| Duplicate | At MW-18 | | At MW-16 | |

(1) (Appendix I plus bis(2ethylhexyl)phthalate (R) = Resample

Table 3 – Monitoring Well Maintenance Performance Reevaluation Schedule

**Table 3**
**Monitoring Well Maintenance and Performance Revaluation Schedule**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| Compliance with: | Monitoring Calendar Years | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| 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 **(biennial)** | 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 | |
| Waste separation from ground water 113.6(2)"l" | X | X | X | X | X | X | X | X | X | X |

| Compliance with: | Monitoring Calendar Years | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
| 567 IAC 113.10(2)"f"(1) high and low water levels (biennial) | X | P | P | P | P | P | P | P | P | P |
| 567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths **(biennial)** | X | | P | | P | | P | | P | |
| 567 IAC 113.10(2)"f"(3) well depths (annual) | X | P | 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)"l" | 2X | 2P | 2P | 2P | 2P | 2P | 2P | 2P | 2P | 2P |

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**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 3/18/2024 | 9/25/2024 | | | **3/18/2024** | Change |
| MW-1d | 1185.49 | 1160.94 | 34.55 | Groundwater Level (ft) | 21.71 | 20.19 | 0 | 0.00001 2004 | Full recovery in 24 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | 1163.78 | 1165.3 | | | | |
| | | | | Measured Well Depth (ft) | 34.55 | 34.55 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | 2.84 | 4.36 | | | | |
| MW-3 | 1145.59 | 1115.84 | 39.75 | Groundwater Level (ft) | 22.05 | 21.51 | 0 | 0.00005 2004 | Full recovery in 6 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | 1123.54 | 1124.08 | | | | |
| | | | | Measured Well Depth (ft) | 39.75 | 39.75 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | 7.7 | 8.24 | | | | |
| MW-7 | 1118.81 | 1097.01 | 31.8 | Groundwater Level (ft) | 20 | 20.29 | -0.02 | 0.00003 2004 | Full recovery in 4 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | 1098.81 | 1098.52 | | | | |
| | | | | Measured Well Depth (ft) | 31.82 | 31.82 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | 1.8 | 1.51 | | | | |
| MW-10 | 1151.88 | 1126.48 | 35.4 | Groundwater Level (ft) | 32.7 | 32.09 | 0 | 0.00002 2004 | Full recovery in 4 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | 1119.18 | 1119.79 | | | | |
| | | | | Measured Well Depth (ft) | 35.4 | 35.4 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | -7.3 | -6.69 | | | | |
| MW-13 | 1127.99 | 1095.11 | 42.88 | Groundwater Level (ft) | 18.3 | 17.72 | 0 | 0.000001 2004 | Full recovery in > 24 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | 1109.69 | 1110.27 | | | | |
| | | | | Measured Well Depth (ft) | 42.88 | 42.88 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | 14.58 | 15.16 | | | | |
| MW-14 | 1095.66 | 1082.91 | 22.75 | Groundwater Level (ft) | 12 | 15.11 | 0 | 0.00005 2004 | Full recovery in 5 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | 1083.66 | 1080.55 | | | | |
| | | | | Measured Well Depth (ft) | 22.75 | 22.75 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | 0.75 | -2.36 | | | | |
| MW-16 | 1099.36 | 1069.36 | 40 | Groundwater Level (ft) | 11.95 | 13.68 | 0 | 0.00004 2004 | Full recovery in 6 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | 1087.41 | 1085.68 | | | | |
| | | | | Measured Well Depth (ft) | 40 | 40 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | 18.05 | 16.32 | | | | |
| MW-17 | 1159.5 | 1122.00 | 47.5 | Groundwater Level (ft) | 18.28 | 18.27 | 0 | 0.0000393 2023 | Full recovery in 6 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | 1141.22 | 1141.23 | | | | |
| | | | | Measured Well Depth (ft) | 47.5 | 47.5 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | 19.22 | 19.23 | | | | |
| MW-18 | 1130.69 | 1118.09 | 27.6 | Groundwater Level (ft) | 19.34 | 17.97 | 0 | 0.000471 2023 | Full recovery in 6 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | 1111.35 | 1112.72 | | | | |
| | | | | Measured Well Depth (ft) | 27.6 | 27.6 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | -6.74 | -5.37 | | | | |
| MW-19 | 1127.7 | 1112.95 | 24.75 | Groundwater Level (ft) | 19.27 | ~~19.63~~ | 0 | 0.000755 2023 | Full recovery in 5 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | 1108.43 | ~~1108.07~~ | | | | |
| | | | | Measured Well Depth (ft) | 24.75 | ~~24.75~~ | | | | |
| | | | | Submerged (+) or Exposed screen (-) | -4.52 | ~~-4.88~~ | | | | |
| MW-19R | 1131.46 | 1112.26 | 29.65 | Groundwater Level (ft) | ~~19.27~~ | 19.87 | 0 | 0.000367 2024 | Full recovery in 1 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | ~~1112.19~~ | 1111.59 | | | | |
| | | | | Measured Well Depth (ft) | ~~29.65~~ | 29.65 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | ~~-0.07~~ | -0.67 | | | | |
| MW-20 | 1122.96 | 1107.66 | 25.3 | Groundwater Level (ft) | 18.64 | 18.61 | 0 | 0.000848 2023 | Full recovery in 4 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | 1104.32 | 1104.35 | | | | |
| | | | | Measured Well Depth (ft) | 25.3 | 25.3 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | -3.34 | -3.31 | | | | |
| MW-44 | 1166.36 | 1129.18 | 47.18 | Groundwater Level (ft) | 15.95 | 13.93 | 0 | 0.00000628 2020 | Full recovery in 24 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | 1150.41 | 1152.43 | | | | |
| | | | | Measured Well Depth (ft) | 47.18 | 47.18 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | 21.23 | 23.25 | | | | |
| MW-53 | 1107.26 | 1087.31 | 30.4 | Groundwater Level (ft) | ~~11.85~~ | 11.85 | 0 | 0.00000708 2024 | Full recovery in 24 hour | None percieved |
| | | | | Groundwater Elevation (Ft MSL) | ~~1095.41~~ | 1095.41 | | | | |
| | | | | Measured Well Depth (ft) | ~~30.4~~ | 30.4 | | | | |
| | | | | Submerged (+) or Exposed screen (-) | ~~8.1~~ | 8.1 | | | | |

**Groundwater Underdrain Piezometer**

| Well | | Date of Measurements | |
|---|---|---|---|
| | | 3/18/2024 | 9/25/2024 |
| GPZ-1 | Top of Casing Elevation | 1116.07 | 1116.07 |
| | Bottom GPZ Elevation (depth = 11.6 ft) | 1104.47 | 1104.47 |
| | Liquid Level (depth in ft) | 11.4 | 11.4 |
| | Liquid Elevation | 1104.67 | 1104.67 |
| | Liner Elevation @ GPZ-1 | 1110.00 | 1110.00 |
| | Separation (ft) | 5.33 | 5.33 |
| GPZ-2 | Top of Casing Elevation | *Not* | 1112.36 |
| | Bottom GPZ Elevation (depth = 14.6 ft) | *Yet* | 1097.76 |
| | Liquid Level (depth in ft) | *Installed* | 14.60 |
| | Liquid Elevation | | 1097.76 |
| | Liner Elevation @ GPZ-2 | | 1103.00 |
| | Separation (ft) | | 5.24 |

Table 4A– Summary of Historic Water Elevation Data

Water Elevation Data
Page County Sanitary Landfill
73-SDP-01-75P

| Well/TOC | MW-1 1185.49 | | | | MW-3 1145.59 | | | | MW-7 1118.81 | | | | MW-10 1151.88 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS |
| 10/13/17 | 16.80 | 1168.69 | 1160.94 | 7.75 | 26.12 | 1119.47 | 1115.84 | 3.63 | 18.10 | 1100.71 | 1097.01 | 3.70 | 27.25 | 1124.63 | 1126.48 | -1.85 |
| 03/09/18 | 24.02 | 1161.47 | 1160.94 | 0.53 | 21.70 | 1123.89 | 1115.84 | 8.05 | 20.81 | 1098.00 | 1097.01 | 0.99 | 31.45 | 1120.43 | 1126.48 | -6.05 |
| 09/06/18 | 15.80 | 1169.69 | 1160.94 | 8.75 | 21.24 | 1124.35 | 1115.84 | 8.51 | 17.74 | 1101.07 | 1097.01 | 4.06 | 26.65 | 1125.23 | 1126.48 | -1.25 |
| 03/07/19 | 19.66 | 1165.83 | 1160.94 | 4.89 | 15.67 | 1129.92 | 1115.84 | 14.08 | 20.33 | 1098.48 | 1097.01 | 1.47 | 24.94 | 1126.94 | 1126.48 | 0.46 |
| 09/26/19 | 19.43 | 1166.06 | 1160.94 | 5.12 | 18.78 | 1126.81 | 1115.84 | 10.97 | 19.70 | 1099.11 | 1097.01 | 2.10 | 28.47 | 1123.41 | 1126.48 | -3.07 |
| 04/02/20 | 20.32 | 1165.17 | 1160.94 | 4.23 | 15.50 | 1130.09 | 1115.84 | 14.25 | 19.76 | 1099.05 | 1097.01 | 2.04 | 22.96 | 1128.92 | 1126.48 | 2.44 |
| 09/17/20 | 21.43 | 1164.06 | 1160.94 | 3.12 | 19.72 | 1125.87 | 1115.84 | 10.03 | 20.33 | 1098.48 | 1097.01 | 1.47 | 30.06 | 1121.82 | 1126.48 | -4.66 |
| 03/25/21 | 16.85 | 1168.64 | 1160.94 | 7.70 | 20.35 | 1125.24 | 1115.84 | 9.40 | 18.64 | 1100.17 | 1097.01 | 3.16 | 30.18 | 1121.70 | 1126.48 | -4.78 |
| 09/16/21 | 19.81 | 1165.68 | 1160.94 | 4.74 | 21.65 | 1123.94 | 1115.84 | 8.10 | 20.47 | 1098.34 | 1097.01 | 1.33 | 31.06 | 1120.82 | 1126.48 | -5.66 |
| 03/16/22 | 23.85 | 1161.64 | 1160.94 | 0.70 | 21.63 | 1123.96 | 1115.84 | 8.12 | 20.57 | 1098.24 | 1097.01 | 1.23 | 31.57 | 1120.31 | 1126.48 | -6.17 |
| 09/01/22 | 20.05 | 1165.44 | 1160.94 | 4.50 | 20.15 | 1125.44 | 1115.84 | 9.60 | 20.33 | 1098.48 | 1097.01 | 1.47 | 30.70 | 1121.18 | 1126.48 | -5.30 |
| 03/24/23 | 20.97 | 1164.52 | 1160.94 | 3.58 | 20.41 | 1125.18 | 1115.84 | 9.34 | 19.55 | 1099.26 | 1097.01 | 2.25 | 31.53 | 1120.35 | 1126.48 | -6.13 |
| 09/07/23 | 20.91 | 1164.58 | 1160.94 | 3.64 | 21.90 | 1123.69 | 1115.84 | 7.85 | 20.53 | 1098.28 | 1097.01 | 1.27 | 31.80 | 1120.08 | 1126.48 | -6.40 |
| 03/18/24 | 21.71 | 1163.78 | 1160.94 | 2.84 | 22.05 | 1123.54 | 1115.84 | 7.70 | 20.00 | 1098.81 | 1097.01 | 1.80 | 32.70 | 1119.18 | 1126.48 | -7.30 |
| 09/25/24 | 20.19 | 1165.30 | 1160.94 | 4.36 | 21.51 | 1124.08 | 1115.84 | 8.24 | 20.29 | 1098.52 | 1097.01 | 1.51 | 32.09 | 1119.79 | 1126.48 | -6.69 |
| minimum | 15.80 | 1161.47 | | 0.53 | 15.50 | 1119.47 | | 3.63 | 17.74 | 1098.00 | | 0.99 | 22.96 | 1119.18 | | -7.30 |
| maximum | 24.02 | 1169.69 | | 8.75 | 26.12 | 1130.09 | | 14.25 | 20.81 | 1101.07 | | 4.06 | 32.70 | 1128.92 | | 2.44 |
| average | | | | 4.43 | | | | 9.19 | | | | 1.99 | | | | -4.16 |

Exposed Screens

Submerged Screens

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| Well/TOC | MW-11 1140.3 | | | | MW-13 1127.99 | | | | MW-14 1095.66 | | | | MW-16 1099.36 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS |
| 10/13/17 | 17.05 | 1123.25 | 1121.95 | 1.30 | 18.20 | 1109.79 | 1095.11 | 14.68 | 10.23 | 1085.43 | 1082.91 | 2.52 | 9.80 | 1089.56 | 1069.36 | 20.20 |
| 03/09/18 | 20.30 | 1120.00 | 1121.95 | -1.95 | 18.21 | 1109.78 | 1095.11 | 14.67 | 11.92 | 1083.74 | 1082.91 | 0.83 | 11.90 | 1087.46 | 1069.36 | 18.10 |
| 09/06/18 | 16.19 | 1124.11 | 1121.95 | 2.16 | 17.96 | 1110.03 | 1095.11 | 14.92 | 10.44 | 1085.22 | 1082.91 | 2.31 | 10.29 | 1089.07 | 1069.36 | 19.71 |
| 03/07/19 | 15.51 | 1124.79 | 1121.95 | 2.84 | 16.32 | 1111.67 | 1095.11 | 16.56 | 11.48 | 1084.18 | 1082.91 | 1.27 | 10.91 | 1088.45 | 1069.36 | 19.09 |
| 09/26/19 | 17.30 | 1123.00 | 1121.95 | 1.05 | 17.52 | 1110.47 | 1095.11 | 15.36 | 11.90 | 1083.76 | 1082.91 | 0.85 | 11.50 | 1087.86 | 1069.36 | 18.50 |
| 04/02/20 | 13.77 | 1126.53 | 1121.95 | 4.58 | 16.96 | 1111.03 | 1095.11 | 15.92 | 11.08 | 1084.58 | 1082.91 | 1.67 | 10.26 | 1089.10 | 1069.36 | 19.74 |
| 09/17/20 | 19.66 | 1120.64 | 1121.95 | -1.31 | 17.63 | 1110.36 | 1095.11 | 15.25 | 15.35 | 1080.31 | 1082.91 | -2.60 | 13.20 | 1086.16 | 1069.36 | 16.80 |
| 03/25/21 | 15.15 | 1125.15 | 1121.95 | 3.20 | 17.91 | 1110.08 | 1095.11 | 14.97 | 9.53 | 1086.13 | 1082.91 | 3.22 | 9.78 | 1089.58 | 1069.36 | 20.22 |
| 09/16/21 | 20.33 | 1119.97 | 1121.95 | -1.98 | 18.20 | 1109.79 | 1095.11 | 14.68 | 14.82 | 1080.84 | 1082.91 | -2.07 | 13.61 | 1085.75 | 1069.36 | 16.39 |
| 03/16/22 | 20.75 | 1119.55 | 1121.95 | -2.40 | 18.21 | 1109.78 | 1095.11 | 14.67 | 12.29 | 1083.37 | 1082.91 | 0.46 | 11.75 | 1087.61 | 1069.36 | 18.25 |
| 09/01/22 | 19.94 | 1120.36 | 1121.95 | -1.59 | 17.73 | 1110.26 | 1095.11 | 15.15 | 15.60 | 1080.06 | 1082.91 | -2.85 | 13.90 | 1085.46 | 1069.36 | 16.10 |
| 03/24/23 | 19.54 | 1120.76 | 1121.95 | -1.19 | 18.18 | 1109.81 | 1095.11 | 14.70 | 10.72 | 1084.94 | 1082.91 | 2.03 | 10.75 | 1088.61 | 1069.36 | 19.25 |
| 09/07/23 | removed | | | | 18.16 | 1109.83 | 1095.11 | 14.72 | 15.70 | 1079.96 | 1082.91 | -2.95 | 14.54 | 1084.82 | 1069.36 | 15.46 |
| 03/18/24 | | | | | 18.30 | 1109.69 | 1095.11 | 14.58 | 12.00 | 1083.66 | 1082.91 | 0.75 | 11.95 | 1087.41 | 1069.36 | 18.05 |
| 09/25/24 | | | | | 17.72 | 1110.27 | 1095.11 | 15.16 | 15.11 | 1080.55 | 1082.91 | -2.36 | 13.68 | 1085.68 | 1069.36 | 16.32 |
| minimum | 13.77 | 1119.55 | | -2.40 | 16.32 | 1109.69 | | 14.58 | 9.53 | 1079.96 | | -2.95 | 9.78 | 1084.82 | | 15.46 |
| maximum | 20.75 | 1126.53 | | 4.58 | 18.30 | 1111.67 | | 16.56 | 15.70 | 1086.13 | | 3.22 | 14.54 | 1089.58 | | 20.22 |
| average | | | | 0.39 | | | | 15.07 | | | | 0.21 | | | | 18.15 |

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| Well/TOC | MW-17 | 1159.5 | | | MW-18 | 1130.69 | | | MW-19 | 1127.7 | | | MW-20 | 1122.96 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | MW-19R | 1131.46 | 2024 | | | | | |
| Date | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS |
| 10/13/17 | 11.71 | 1147.79 | 1122.00 | 25.79 | 10.49 | 1120.20 | 1118.09 | 2.11 | 18.72 | 1108.98 | 1112.95 | -3.97 | 18.32 | 1104.64 | 1107.66 | -3.02 |
| 03/09/18 | 15.15 | 1144.35 | 1122.00 | 22.35 | 18.57 | 1112.12 | 1118.09 | -5.97 | 19.14 | 1108.56 | 1112.95 | -4.39 | 18.86 | 1104.10 | 1107.66 | -3.56 |
| 09/06/18 | 13.08 | 1146.42 | 1122.00 | 24.42 | 9.35 | 1121.34 | 1118.09 | 3.25 | 18.32 | 1109.38 | 1112.95 | -3.57 | 18.38 | 1104.58 | 1107.66 | -3.08 |
| 03/07/19 | 9.30 | 1150.20 | 1122.00 | 28.20 | 15.34 | 1115.35 | 1118.09 | -2.74 | 18.25 | 1109.45 | 1112.95 | -3.50 | 18.23 | 1104.73 | 1107.66 | -2.93 |
| 09/26/19 | 11.66 | 1147.84 | 1122.00 | 25.84 | 13.16 | 1117.53 | 1118.09 | -0.56 | 18.37 | 1109.33 | 1112.95 | -3.62 | 18.15 | 1104.81 | 1107.66 | -2.85 |
| 04/02/20 | 8.95 | 1150.55 | 1122.00 | 28.55 | 13.01 | 1117.68 | 1118.09 | -0.41 | 17.88 | 1109.82 | 1112.95 | -3.13 | 17.80 | 1105.16 | 1107.66 | -2.50 |
| 09/17/20 | 12.70 | 1146.80 | 1122.00 | 24.80 | 18.60 | 1112.09 | 1118.09 | -6.00 | 17.95 | 1109.75 | 1112.95 | -3.20 | 18.45 | 1104.51 | 1107.66 | -3.15 |
| 03/25/21 | 11.78 | 1147.72 | 1122.00 | 25.72 | 19.10 | 1111.59 | 1118.09 | -6.50 | 18.38 | 1109.32 | 1112.95 | -3.63 | 18.27 | 1104.69 | 1107.66 | -2.97 |
| 09/16/21 | 15.30 | 1144.20 | 1122.00 | 22.20 | 18.39 | 1112.30 | 1118.09 | -5.79 | 19.38 | 1108.32 | 1112.95 | -4.63 | 18.70 | 1104.26 | 1107.66 | -3.40 |
| 03/16/22 | 16.86 | 1142.64 | 1122.00 | 20.64 | 18.18 | 1112.51 | 1118.09 | -5.58 | 19.20 | 1108.50 | 1112.95 | -4.45 | 18.73 | 1104.23 | 1107.66 | -3.43 |
| 09/01/22 | 14.27 | 1145.23 | 1122.00 | 23.23 | 18.18 | 1112.51 | 1118.09 | -5.58 | 19.15 | 1108.55 | 1112.95 | -4.40 | 18.57 | 1104.39 | 1107.66 | -3.27 |
| 03/24/23 | 14.89 | 1144.61 | 1122.00 | 22.61 | 14.67 | 1116.02 | 1118.09 | -2.07 | 19.15 | 1108.55 | 1112.95 | -4.40 | 18.28 | 1104.68 | 1107.66 | -2.98 |
| 09/07/23 | 17.20 | 1142.30 | 1122.00 | 20.30 | 18.71 | 1111.98 | 1118.09 | -6.11 | 19.63 | 1108.07 | 1112.95 | -4.88 | 18.80 | 1104.16 | 1107.66 | -3.50 |
| 03/18/24 | 18.28 | 1141.22 | 1122.00 | 19.22 | 19.34 | 1111.35 | 1118.09 | -6.74 | 19.27 | 1108.43 | 1112.95 | -4.52 | 18.64 | 1104.32 | 1107.66 | -3.34 |
| 09/25/24 | 18.27 | 1141.23 | 1122.00 | 19.23 | 17.97 | 1112.72 | 1118.09 | -5.37 | 20.25 | 1111.21 | 1112.26 | -1.05 | 18.61 | 1104.35 | 1107.66 | -3.31 |
| minimum | 8.95 | 1141.22 | | 19.22 | 9.35 | 1111.35 | | -6.74 | 17.88 | 1108.07 | | -4.88 | 17.80 | 1104.10 | | -3.56 |
| maximum | 18.28 | 1150.55 | | 28.55 | 19.34 | 1121.34 | | 3.25 | 20.25 | 1111.21 | | -1.05 | 18.86 | 1105.16 | | -2.50 |
| average | | | | 23.54 | | | | -3.60 | | | | -3.82 | | | | -3.15 |

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| Well/TOC | MW-44 | 1166.36 | | | MW-53 | 1107.26 | | |
|---|---|---|---|---|---|---|---|---|
| Date | Water Depth | Water Elevation | Top of Screen (TOS) Elevation | above(+)/below(-) TOS | Water Depth | Water Elevation | Top of Screen (TOS Elevation | above(+)/below(-) TOS |
| 3/16/2022 | 14.23 | 1152.13 | 1129.18 | 22.95 | | | | |
| 9/7/2023 | 16.00 | 1150.36 | 1129.18 | 21.18 | | | | |
| 3/18/2024 | 15.95 | 1150.41 | 1129.18 | 21.23 | | | | |
| 9/25/2024 | 13.93 | 1152.43 | 1129.18 | 23.25 | 18.61 | 1088.65 | 1087.26 | 1.39 |
| minimum | 13.93 | 1150.36 | | 21.18 | 18.61 | 1088.65 | | 1.39 |
| maximum | 16.00 | 1152.43 | | 23.25 | 18.61 | 1088.65 | | 1.39 |
| average | | | | 22.15 | | | | 1.39 |

Table 5 – Background and GWPS Summary

**Table 5**
**Background and GWPS Summary**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
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**Interwell Background Wells ( MW-1 prior to 2023, MW-17, and MW-44)**

| **Inorganics - Appendix I** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent** | **Units** | **Model Type** | **Samples - N** | **Detections** | **Mean** | **SD** | **Prediction Limit** | **Confidence** | **GWPS** | **Source** |
| Antimony (Sb) | µg/l | nonparametric | 42 | 0 | | | 2.0000 | 0.99 | 6 | SS |
| Arsenic (As) | µg/l | nonparametric | 42 | 1 | | | 5.6000 | 0.99 | 10 | SS |
| Barium (Ba) | µg/l | normal | 42 | **42** | 258.9714 | 208.3134 | 769.2044 | | 2000 | SS |
| Beryllium (Be) | µg/l | nonparametric | 42 | 0 | | | 4.0000 | 0.99 | 4 | SS |
| Cadmium (Cd) | µg/l | nonparametric | 42 | 3 | | | 1.4000 | 0.99 | 5 | SS |
| Chromium (Cr) | µg/l | nonparametric | 42 | 1 | | | 8.9000 | 0.99 | 100 | SS |
| Cobalt (Co) | µg/l | nonparametric | 42 | 11 | | | **30.6000** | 0.99 | **30.6** | **Site** |
| Copper (Cu) | µg/l | nonparametric | 42 | 2 | | | 11.6000 | 0.99 | 1300 | SS |
| Lead (Pb) | µg/l | nonparametric | 42 | 3 | | | 7.4000 | 0.99 | 15 | SS |
| Nickel (Ni) | µg/l | nonparametric | 42 | 12 | | | 60.4000 | 0.99 | 100 | SS |
| Selenium (Se) | µg/l | nonparametric | 42 | 0 | | | 4.0000 | 0.99 | 50 | SS |
| Silver (Ag) | µg/l | nonparametric | 42 | 0 | | | 4.0000 | 0.99 | 100 | SS |
| Thallium (Tl) | µg/l | nonparametric | 42 | 0 | | | 2.0000 | 0.99 | 2 | SS |
| Vanadium (V) | µg/l | nonparametric | 42 | 0 | | | 20.0000 | 0.99 | 35 | SS |
| Zinc (Zn) | µg/l | nonparametric | 42 | 9 | | | 69.2000 | 0.99 | 2000 | SS |

| **VOC - Appendix I** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent** | **Units** | **Model Type** | **Samples - N** | **Detections** | **Mean** | **SD** | **Prediction Limit** | **Confidence** | **GWPS** | **Source** |
| All | µg/l | DQR | 42 | 0 | <1 | <1 | <1 | <1 | various | SS |

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

Table 6 – Summary of Detections

**Table 6**
**Summary of Well/Detected Constituent Pairs that Exceed the Prediction Limit**
**Annual Water Quality Report**
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| Well | Constituent | Date | Most recent result (ug/L) | Background Standard (ug/L) | Monitoring Program |
|---|---|---|---|---|---|
| MW-1d | Barium | 3/18/2024 | 784 | 776.07 | Assessment Monitoring Well |
| MW-1d | Benzene | 3/18/2024 | 1.3 | 1 | Assessment Monitoring Well |
| MW-1d | Chlorobenzene | 3/18/2024 | 1.5 | 1 | Assessment Monitoring Well |
| MW-1d | Cloroethane | 3/18/2024 | 1.1 | 1 | Assessment Monitoring Well |
| MW-7 | Arsenic | 9/25/2024 | 9.0 | 5.6 | Assessment Monitoring Well |
| MW-16 | Arsenic | 3/18/2024 | 20.4 | 5.6 | Assessment Monitoring Well |
| MW-16 | Arsenic | 9/25/2024 | 26.2 | 5.6 | Assessment Monitoring Well |
| MW-16 | 1,1-Dichloroethane | 3/18/2024 | 1.0 | 1.0 | Assessment Monitoring Well |
| MW-16 | 1,4-dichlorobenzene | 3/18/2024 | 1.8 | 1.0 | Assessment Monitoring Well |
| MW-16 | Benzene | 3/18/2024 | 1.5 | 1.0 | Assessment Monitoring Well |
| MW-16 | Chlorobenzene | 3/18/2024 | 5.2 | 1.0 | Assessment Monitoring Well |
| MW-16 | Chlorobenzene | 9/25/2024 | 2.3 | 1.0 | Assessment Monitoring Well |
| MW-18 | Arsenic | 3/18/2024 | 23.7 | 5.6 | Corrective Action Monitoring Well |
| MW-18 | Arsenic | 9/25/2024 | 43.6 | 5.6 | Corrective Action Monitoring Well |
| MW-19 | 1,1-dichloroethane | 3/24/2023 | 2.3 | 1.0 | Assessment Monitoring Well |
| MW-19R | 1,1-dichloroethane | 11/25/2024 | 3.0 | 1.0 | Assessment Monitoring Well |
| MW-19 | cis-1,2-dichloroethylene | 3/24/2023 | 1.4 | 1.0 | Assessment Monitoring Well |
| MW-19R | cis-1,2-dichloroethylene | 11/25/2024 | 2.4 | 1.0 | Assessment Monitoring Well |
| MW-20 | Arsenic | 3/18/2024 | 112 | 5.6 | Corrective Action Monitoring Well |
| MW-20 | Arsenic | 9/25/2024 | 44.1 | 5.6 | Corrective Action Monitoring Well |
| MW-20 | Barium | 3/18/2024 | 2110 | 776.07 | Corrective Action Monitoring Well |
| MW-20 | Barium | 9/25/2024 | 1950 | 769.20 | Corrective Action Monitoring Well |
| MW-20 | benzene | 3/18/2024 | 2.2 | 1.0 | Corrective Action Monitoring Well |
| MW-20 | benzene | 9/25/2024 | 2.1 | 1.0 | Corrective Action Monitoring Well |
| MW-20 | chlorobenzene | 3/18/2024 | 1.2 | 1.0 | Corrective Action Monitoring Well |
| MW-20 | chlorobenzene | 9/25/2024 | 1.9 | 1.0 | Corrective Action Monitoring Well |
| MW-20 | chloroethane | 3/18/2024 | 1.2 | 1.0 | Corrective Action Monitoring Well |
| GU-3 | Zinc | 8/1/2024 | 173 | 69.2 | Detection Monitoring Well |
| GU-3 | Zinc | 9/25/2024 | <20 | 69.2 | Detection Monitoring Well |
| GU-3 | Zinc | 11/25/2024 | NT | 69.2 | Detection Monitoring Well |
| GU-4 | Zinc | 8/1/2024 | 67.2 | 69.2 | Detection Monitoring Well |
| GU-4 | Zinc | 9/25/2024 | 106.0 | 69.2 | Detection Monitoring Well |
| GU-4 | Zinc | 11/25/2024 | 127.0 | 69.2 | Detection Monitoring Well |

Note: Testing at GU-3 and GU-4 was initiated prior to waste placement. Intrawell statistical evaluation will be applied as sufficient data bemomes available.

Table 7 – Summary of Ongoing and Newly Identified SSI

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-1d | Barium | 9/7/2023 | 660 | 754.8120 | --- | 2000 | | | |
| MW-1d | Barium | 3/18/2024 | 784 | 776.0663 | --- | 2000 | | | |
| MW-1d | Barium | 9/25/2024 | 637 | 769.2044 | --- | 2000 | | | |
| MW-1d | Benzene | 9/7/2023 | 1.1 | 1 | --- | 5 | 5/9/2023 | NA | pending |
| MW-1d | Benzene | 3/18/2024 | 1.3 | 1 | --- | 5 | 5/9/2023 | NA | pending |
| MW-1d | Benzene | 9/25/2024 | <1.0 | 1 | --- | 5 | 5/9/2023 | NA | pending |
| MW-1d | Chlorobenzene | 9/7/2023 | 1.0 | 1 | --- | 100 | | | |
| MW-1d | Chlorobenzene | 3/18/2024 | 1.5 | 1 | --- | 100 | | | |
| MW-1d | Chlorobenzene | 9/25/2024 | <1.0 | 1 | --- | 100 | | | |
| MW-1d | Cloroethane | 9/7/2023 | 1.0 | 1 | --- | 2800 | 5/9/2023 | NA | pending |
| MW-1d | Cloroethane | 3/18/2024 | 1.1 | 1 | --- | 2800 | 5/9/2023 | NA | pending |
| MW-1d | Cloroethane | 9/25/2024 | <1.0 | 1 | --- | 2800 | 5/9/2023 | NA | pending |

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

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-3 | Copper | 9/17/2014 | <4.0 | 11.6 | --- | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 4/28/2015 | <4.0 | 11.6 | --- | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 10/6/2015 | <4.0 | 11.6 | --- | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 4/23/2016 | <4.0 | 11.6 | --- | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 9/1/2016 | <4.0 | 11.6 | --- | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 3/21/2017 | <4.0 | 11.6 | --- | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 10/13/2017 | <4.0 | 11.6 | --- | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 3/9/2018 | <4.0 | 11.6 | --- | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 9/6/2018 | <4.0 | 11.6 | --- | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 3/7/2019 | <4.0 | 11.6 | --- | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 9/26/2019 | <4.0 | 11.6 | --- | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 4/2/2020 | <4.0 | 11.6 | --- | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 9/17/2020 | 4.40 | 11.6 | 2.000 | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 3/25/2021 | <4.0 | 11.6 | 2.000 | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 9/16/2021 | <4.0 | 11.6 | 2.000 | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 3/16/2022 | 12.00 | 11.6 | 0.998 | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 9/1/2022 | <4.0 | 11.6 | 0.170 | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 3/24/2023 | <4.0 | 11.6 | 0.170 | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 9/7/2023 | <4.0 | 11.6 | 0.170 | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 3/18/2024 | <4.0 | 11.6 | 0.170 | 1300 | 3/16/2022 | NA | 9/1/2016 |
| MW-3 | Copper | 9/25/2024 | <4.0 | 11.6 | 0.170 | 1300 | 3/16/2022 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-3 | Selenium | 9/17/2014 | <4.0 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 4/28/2015 | 5.80 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 10/6/2015 | <4.0 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 4/23/2016 | 4.60 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 9/1/2016 | 4.20 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 3/21/2017 | 4.00 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 10/13/2017 | 4.20 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 1/12/2018 | 6.10 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 3/9/2018 | 4.50 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 9/6/2018 | 4.20 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 3/7/2019 | 7.50 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 9/26/2019 | 9.80 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 4/2/2020 | <4.0 | 4.00 | --- | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 9/17/2020 | 5.00 | 4.00 | 3.174 | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 3/25/2021 | <4.0 | 4.00 | 1.511 | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 9/16/2021 | <4.0 | 4.00 | 0.986 | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 3/16/2022 | <4.0 | 4.00 | 0.986 | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 9/1/2022 | 5.00 | 4.00 | 0.986 | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 3/24/2023 | 4.80 | 4.00 | 1.478 | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 9/7/2023 | <4.0 | 4.00 | 1.478 | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 3/18/2024 | <4.0 | 4.00 | 1.478 | 50 | 4/28/2015 | NA | 9/1/2016 |
| MW-3 | Selenium | 9/25/2024 | <4.0 | 4.00 | 1.478 | 50 | 4/28/2015 | NA | 9/1/2016 |

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

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-7 | Arsenic | 9/17/2014 | <4.0 | 5.6 | 2.000 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 4/28/2015 | <4.0 | 5.6 | 2.000 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 10/6/2015 | <4.0 | 5.6 | 2.000 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 4/23/2016 | <4.0 | 5.6 | 2.000 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 9/1/2016 | <4.0 | 5.6 | 2.000 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 3/21/2017 | <4.0 | 5.6 | 2.000 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 10/13/2017 | <4.0 | 5.6 | 2.000 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 3/9/2018 | <4.0 | 5.6 | 2.000 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 9/6/2018 | <4.0 | 5.6 | 2.000 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 3/7/2019 | <4.0 | 5.6 | 2.000 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 9/26/2019 | 8.20 | 5.6 | 0.865 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 12/17/2019 | 4.70 | 5.6 | 1.679 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 4/2/2020 | <4.0 | 5.6 | 1.679 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 9/17/2020 | 6.90 | 5.6 | 3.098 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 12/3/2020 | 7.20 | 5.6 | 3.116 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 3/25/2021 | <4.0 | 5.6 | 1.998 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 9/16/2021 | <4.0 | 5.6 | 1.998 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 3/16/2022 | 4.30 | 5.6 | 0.972 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 9/1/2022 | 5.70 | 5.6 | 1.355 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 3/24/2023 | <4.0 | 5.6 | 1.355 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 9/7/2023 | 8.80 | 5.6 | 1.855 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 3/18/2024 | 5.40 | 5.6 | 2.205 | 10 | 9/26/2019 | NA | 9/1/2016 |
| MW-7 | Arsenic | 9/25/2024 | 9.00 | 5.6 | 2.408 | 10 | 9/26/2019 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
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**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-7 | bis(2-ethylhexyl)phthalate | 9/17/2014 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 4/28/2015 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 10/6/2015 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 4/23/2016 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 9/1/2016 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 3/21/2017 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 10/13/2017 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 3/9/2018 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 9/6/2018 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 3/7/2019 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 9/26/2019 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 12/17/2019 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 4/2/2020 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 9/17/2020 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 12/3/2020 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 3/25/2021 | <6 | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 9/16/2021 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 3/16/2022 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 9/1/2022 | 9.00 | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 3/24/2023 | <6 | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 9/7/2023 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 3/18/2024 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |
| MW-7 | bis(2-ethylhexyl)phthalate | 9/25/2024 | NT | 6 | --- | 6 | 9/26/2019 | NA | 9/1/2022 |

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

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-10 | Arsenic | 9/17/2014 | 18.20 | 5.6 | --- | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 4/28/2015 | 6.50 | 5.6 | --- | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 10/6/2015 | 7.10 | 5.6 | --- | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 4/23/2016 | 16.70 | 5.6 | 6.769 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 9/1/2016 | 9.20 | 5.6 | 5.809 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 3/21/2017 | <4.0 | 5.6 | 3.466 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 10/13/2017 | 18.20 | 5.6 | 5.055 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 3/9/2018 | 7.70 | 5.6 | 3.464 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 9/6/2018 | 47.80 | 5.6 | 1.270 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 3/7/2019 | 4.10 | 5.6 | 2.282 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 9/26/2019 | 11.30 | 5.6 | 0.176 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 4/2/2020 | 38.60 | 5.6 | 7.226 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 9/17/2020 | <4.0 | 5.6 | 0.000 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 3/25/2021 | 8.70 | 5.6 | 1.192 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 9/16/2021 | <4.0 | 5.6 | 0.000 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 3/16/2022 | 26.60 | 5.6 | 0.000 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 9/1/2022 | <4.0 | 5.6 | 0.000 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 3/24/2023 | <4.0 | 5.6 | 0.000 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 9/7/2023 | <4.0 | 5.6 | 0.000 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 3/18/2024 | <4.0 | 5.6 | 2.000 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-10 | Arsenic | 9/25/2024 | 5.20 | 5.6 | 0.918 | 10 | 9/17/2014 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-10 | Barium | 9/17/2014 | 651.0 | 744.8651 | --- | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 4/28/2015 | 549.0 | 744.8651 | --- | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 10/6/2015 | 481.0 | 744.8651 | --- | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 4/23/2016 | 859.0 | 744.8651 | 492.220 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 9/1/2016 | 420.0 | 744.8651 | 408.303 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 3/21/2017 | 370.0 | 744.8651 | 339.940 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 10/13/2017 | 685.0 | 744.8651 | 384.429 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 3/9/2018 | 342.0 | 744.8651 | 318.128 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 9/6/2018 | 761.0 | 744.8651 | 353.779 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 3/7/2019 | 661.0 | 744.8651 | 451.914 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 9/26/2019 | 483.0 | 744.8651 | 400.472 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 4/2/2020 | 871.0 | 744.8651 | 551.322 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 9/17/2020 | 550.0 | 744.8651 | 494.158 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 3/25/2021 | 1070.0 | 744.8651 | 504.669 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 9/16/2021 | 449.0 | 744.8651 | 486.634 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 3/16/2022 | 1950.0 | 744.8651 | 197.352 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 9/1/2022 | 441.0 | 744.8651 | 139.810 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 3/24/2023 | 524.0 | 762.2866 | 0.000 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 9/7/2023 | 553.0 | 754.8120 | 15.887 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 3/18/2024 | 465.0 | 776.0663 | 434.936 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-10 | Barium | 9/25/2024 | 575.0 | 769.2044 | 473.195 | 2000 | 4/23/2016 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-10 | Zinc | 9/17/2014 | 16.40 | 32.0 | --- | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 4/28/2015 | 11.10 | 32.0 | --- | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 10/6/2015 | 19.70 | 32.0 | --- | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 4/23/2016 | <20 | 32.0 | 10.353 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 9/1/2016 | <8 | 32.0 | 5.598 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 3/21/2017 | <8 | 32.0 | 3.007 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 10/13/2017 | <8 | 32.0 | 2.902 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 3/9/2018 | <8 | 32.0 | 4.000 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 9/6/2018 | 34.90 | 32.0 | 0.000 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 3/7/2019 | <8 | 32.0 | 0.000 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 9/26/2019 | 17.70 | 32.0 | 2.450 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 4/2/2020 | <20 | 32.0 | 5.048 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 9/17/2020 | <20 | 32.0 | 5.563 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 3/25/2021 | <20 | 32.0 | 8.591 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 9/16/2021 | <20 | 32.0 | 10.000 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 3/16/2022 | 207.0 | 32.0 | 0.000 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 9/1/2022 | <20 | 32.0 | 0.000 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 3/24/2023 | <20 | 32.0 | 0.000 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 9/7/2023 | <20 | 32.0 | 0.000 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 3/18/2024 | 28.30 | 69.2 | 0.000 | 2000 | 9/6/2018 | NA | 9/1/2016 |
| MW-10 | Zinc | 9/25/2024 | <20 | 69.2 | 3.812 | 2000 | 9/6/2018 | NA | 9/1/2016 |

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

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-16 | Arsenic | 9/18/2014 | 34.30 | 5.6 | --- | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 4/28/2015 | 38.50 | 5.6 | --- | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 10/6/2015 | <4.0 | 5.6 | --- | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 4/23/2016 | <4.0 | 5.6 | 1.936 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 9/1/2016 | <4.0 | 5.6 | 0.000 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 3/21/2017 | 9.30 | 5.6 | 0.664 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 10/13/2017 | 19.00 | 5.6 | 1.099 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 3/9/2018 | <4.0 | 5.6 | 1.099 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 9/6/2018 | <4.0 | 5.6 | 1.099 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 9/26/2019 | 6.30 | 5.6 | 0.360 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 4/2/2020 | 9.30 | 5.6 | 1.812 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 9/17/2020 | 6.50 | 5.6 | 3.416 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 3/25/2021 | 21.20 | 5.6 | 4.719 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 9/16/2021 | 10.40 | 5.6 | 6.268 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 3/16/2022 | 26.50 | 5.6 | 5.224 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 9/1/2022 | 4.70 | 5.6 | 4.016 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 3/24/2023 | 4.30 | 5.6 | 0.000 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 9/7/2023 | <4.0 | 5.6 | 0.000 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 3/18/2024 | 20.40 | 5.6 | 0.000 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-16 | Arsenic | 9/25/2024 | 26.20 | 5.6 | 0.000 | 10 | 9/17/2014 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-16 | Barium | 9/18/2014 | 1130.0 | 744.8651 | --- | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 4/28/2015 | 1370.0 | 744.8651 | --- | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 10/6/2015 | 790.0 | 744.8651 | --- | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 4/23/2016 | 779.0 | 744.8651 | 769.485 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 9/1/2016 | 711.0 | 744.8651 | 646.635 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 3/21/2017 | 867.0 | 744.8651 | 731.413 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 10/13/2017 | 1020.0 | 744.8651 | 728.688 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 1/12/2018 | 818.0 | 744.8651 | 742.791 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 3/9/2018 | 668.0 | 744.8651 | 717.597 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 9/6/2018 | 719.0 | 744.8651 | 671.572 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 9/26/2019 | 796.0 | 744.8651 | 690.198 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 4/2/2020 | 925.0 | 744.8651 | 680.163 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 9/17/2020 | 806.0 | 744.8651 | 737.830 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 3/25/2021 | 1010.0 | 744.8651 | 795.671 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 9/16/2021 | 798.0 | 744.8651 | 796.667 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 3/16/2022 | 1010.0 | 744.8651 | 764.689 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 9/1/2022 | 655.0 | 744.8651 | 663.837 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 3/24/2023 | 481.0 | 762.2866 | 472.531 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 9/7/2023 | 311.0 | 754.8120 | 262.676 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 3/18/2024 | 713.0 | 776.0663 | 326.235 | 2000 | 4/23/2016 | NA | 9/1/2016 |
| MW-16 | Barium | 9/25/2024 | 756.0 | 769.2044 | 320.427 | 2000 | 4/23/2016 | NA | 9/1/2016 |

**Table 7**
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|---|---|---|

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| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-16 | 1,1-dichloroethane | 9/18/2014 | 2.0 | 1 | --- | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 4/28/2015 | 2.2 | 1 | --- | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 10/6/2015 | 1.9 | 1 | --- | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 4/23/2016 | 2.5 | 1 | 1.921 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 9/1/2016 | 1.9 | 1 | 1.876 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 3/21/2017 | 1.6 | 1 | 1.648 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 10/13/2017 | 1.8 | 1 | 1.615 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 3/9/2018 | 2.4 | 1 | 1.630 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 9/6/2018 | <1 | 1 | 0.888 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 3/7/2019 | 1.7 | 1 | 0.911 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 9/26/2019 | 1.3 | 1 | 0.788 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 4/2/2020 | <1 | 1 | 0.480 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 9/17/2020 | <1 | 1 | 0.480 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 3/25/2021 | 1.2 | 1 | 0.498 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 9/16/2021 | <1 | 1 | 0.372 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 3/16/2022 | 1.9 | 1 | 0.237 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 9/1/2022 | <1 | 1 | 0.237 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 3/24/2023 | <1 | 1 | 0.270 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 9/7/2023 | <1 | 1 | 0.270 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 3/18/2024 | 1.0 | 1 | 0.331 | 140 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | 1,1-dichloroethane | 9/25/2024 | <1 | 1 | 0.331 | 140 | 9/18/2014 | NA | 9/1/2016 |

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| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-16 | 1,2-dichloropropane | 9/18/2014 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 4/28/2015 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 10/6/2015 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 4/23/2016 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 9/1/2016 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 3/21/2017 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 10/13/2017 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 3/9/2018 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 9/6/2018 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 3/7/2019 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 9/26/2019 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 4/2/2020 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 9/17/2020 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 3/25/2021 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 9/16/2021 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 3/16/2022 | 1.0 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 9/1/2022 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 3/24/2023 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 9/7/2023 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 3/18/2024 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-16 | 1,2-dichloropropane | 9/25/2024 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |

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| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-16 | 1,4-dichlorobenzene | 9/18/2014 | <1 | 1 | --- | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 4/28/2015 | 1.5 | 1 | --- | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 10/6/2015 | 2.0 | 1 | --- | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 4/23/2016 | 1.6 | 1 | 0.848 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 9/1/2016 | 2.1 | 1 | 1.545 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 3/21/2017 | 2.6 | 1 | 1.719 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 10/13/2017 | 2.0 | 1 | 1.719 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 3/9/2018 | 1.8 | 1 | 1.830 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 9/6/2018 | 2.7 | 1 | 1.892 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 3/7/2019 | 3.8 | 1 | 1.793 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 9/26/2019 | <1 | 1 | 0.990 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 4/2/2020 | <1 | 1 | 0.446 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 9/17/2020 | 1.8 | 1 | 0.300 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 3/25/2021 | 1.8 | 1 | 0.500 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 9/16/2021 | 2.2 | 1 | 0.933 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 3/16/2022 | 2.1 | 1 | 1.733 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 9/1/2022 | <1 | 1 | 0.726 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 3/24/2023 | <1 | 1 | 0.203 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 9/7/2023 | <1 | 1 | 0.000 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 3/18/2024 | 1.8 | 1 | 0.060 | 75 | 4/28/2015 | NA | 9/1/2016 |
| MW-16 | 1,4-dichlorobenzene | 9/25/2024 | <1 | 1 | 0.060 | 75 | 4/28/2015 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
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| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-16 | benzene | 9/18/2014 | <1 | 1 | --- | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 4/28/2015 | <1 | 1 | --- | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 10/6/2015 | 1.0 | 1 | --- | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 4/23/2016 | <1 | 1 | 0.408 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 9/1/2016 | 1.2 | 1 | 0.492 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 3/21/2017 | 1.3 | 1 | 0.692 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 10/13/2017 | 1.1 | 1 | 0.714 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 3/9/2018 | <1 | 1 | 0.714 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 9/6/2018 | 1.7 | 1 | 0.717 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 3/7/2019 | 2.1 | 1 | 0.744 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 9/26/2019 | <1 | 1 | 0.486 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 4/2/2020 | 1.6 | 1 | 0.882 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 9/17/2020 | <1 | 1 | 0.477 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 3/25/2021 | 1.5 | 1 | 0.499 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 9/16/2021 | 1.3 | 1 | 0.793 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 3/16/2022 | 1.6 | 1 | 0.638 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 9/1/2022 | <1 | 1 | 0.638 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 3/24/2023 | <1 | 1 | 0.314 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 9/7/2023 | <1 | 1 | 0.128 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 3/18/2024 | 1.5 | 1 | 0.162 | 5 | 10/6/2015 | NA | 9/1/2016 |
| MW-16 | benzene | 9/25/2024 | <1 | 1 | 0.162 | 5 | 10/6/2015 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
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**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-16 | chlorobenzene | 9/18/2014 | 4.3 | 1 | --- | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 4/28/2015 | 4.4 | 1 | --- | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 10/6/2015 | 4.9 | 1 | --- | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 4/23/2016 | 3.5 | 1 | 3.773 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 9/1/2016 | 6.0 | 1 | 3.797 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 3/21/2017 | 6.4 | 1 | 4.075 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 10/13/2017 | 5.1 | 1 | 4.135 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 3/9/2018 | 4.7 | 1 | 4.870 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 9/6/2018 | 8.1 | 1 | 7.748 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 3/7/2019 | 9.7 | 1 | 4.817 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 9/26/2019 | 4.8 | 1 | 4.674 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 4/2/2020 | 8.8 | 1 | 6.000 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 9/17/2020 | 4.7 | 1 | 4.727 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 3/25/2021 | 5.8 | 1 | 4.366 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 9/16/2021 | 7.3 | 1 | 5.103 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 3/16/2022 | 5.2 | 1 | 4.242 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 9/1/2022 | 2.1 | 1 | 2.528 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 3/24/2023 | 3.0 | 1 | 1.658 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 9/7/2023 | <1 | 1 | 0.393 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 3/18/2024 | 5.2 | 1 | 0.393 | 100 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | chlorobenzene | 9/25/2024 | 2.3 | 1 | 0.464 | 100 | 9/18/2014 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
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KEY: | SSI | SSL LCL>GWPS

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| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-16 | cis-1,2-dichloroethylene | 9/18/2014 | <1 | 1 | --- | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 4/28/2015 | <1 | 1 | --- | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 10/6/2015 | <1 | 1 | --- | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 4/23/2016 | <1 | 1 | 0.500 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 9/1/2016 | 1.1 | 1 | 0.390 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 3/21/2017 | <1 | 1 | 0.390 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 10/13/2017 | 1.2 | 1 | 0.498 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 3/9/2018 | <1 | 1 | 0.498 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 9/6/2018 | <1 | 1 | 0.372 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 3/7/2019 | 1.4 | 1 | 0.494 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 9/26/2019 | <1 | 1 | 0.335 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 4/2/2020 | <1 | 1 | 0.335 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 9/17/2020 | <1 | 1 | 0.335 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 3/25/2021 | 1.3 | 1 | 0.354 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 9/16/2021 | <1 | 1 | 0.354 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 3/16/2022 | 2.1 | 1 | 0.199 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 9/1/2022 | <1 | 1 | 0.199 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 3/24/2023 | <1 | 1 | 0.000 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 9/7/2023 | <1 | 1 | 0.000 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 3/18/2024 | <1 | 1 | 0.500 | 70 | 9/1/2016 | NA | 9/1/2016 |
| MW-16 | cis-1,2-dichloroethylene | 9/25/2024 | <1 | 1 | 0.500 | 70 | 9/1/2016 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-16 | dichlorodifluoromethane | 9/18/2014 | 3.6 | 1 | --- | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 4/28/2015 | 2.6 | 1 | --- | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 10/6/2015 | 2.9 | 1 | --- | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 4/23/2016 | 3.2 | 1 | 2.705 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 9/1/2016 | 3.6 | 1 | 2.705 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 3/21/2017 | 2.2 | 1 | 2.463 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 10/13/2017 | 1.6 | 1 | 1.858 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 3/9/2018 | 3.0 | 1 | 1.838 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 9/6/2018 | <1 | 1 | 0.913 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 3/7/2019 | 4.6 | 1 | 0.888 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 9/26/2019 | <1 | 1 | 0.406 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 4/2/2020 | <1 | 1 | 0.000 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 9/17/2020 | <1 | 1 | 0.000 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 3/25/2021 | NT | 1 | 0.000 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 9/16/2021 | <1 | 1 | 0.500 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 3/16/2022 | NT | 1 | 0.500 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 9/1/2022 | NT | 1 | 0.500 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 3/24/2023 | NT | 1 | 0.500 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 9/7/2023 | NT | 1 | 0.500 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 3/18/2024 | NT | 1 | 0.500 | 1000 | 9/18/2014 | NA | 9/1/2016 |
| MW-16 | dichlorodifluoromethane | 9/25/2024 | NT | 1 | 0.500 | 1000 | 9/18/2014 | NA | 9/1/2016 |

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

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-18 | Arsenic | 9/17/2014 | 22.00 | 5.6 | --- | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 4/28/2015 | 45.90 | 5.6 | --- | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 10/6/2015 | 39.20 | 5.6 | --- | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 4/23/2016 | 51.80 | 5.6 | 28.563 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 9/1/2016 | 81.40 | 5.6 | 38.459 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 3/21/2017 | 49.70 | 5.6 | 39.842 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 10/13/2017 | 50.10 | 5.6 | 44.861 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 3/9/2018 | 46.10 | 5.6 | 42.551 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 9/6/2018 | 74.40 | 5.6 | 43.809 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 3/7/2019 | 87.20 | 5.6 | 47.426 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 9/26/2019 | 99.20 | 5.6 | 56.988 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 4/2/2020 | 81.70 | 5.6 | 76.567 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 9/17/2020 | 34.80 | 5.6 | 51.264 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 3/25/2021 | 9.60 | 5.6 | 20.518 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 9/16/2021 | 36.00 | 5.6 | 14.520 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 3/16/2022 | 34.70 | 5.6 | 13.722 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 9/1/2022 | 24.10 | 5.6 | 11.722 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 3/24/2023 | 67.40 | 5.6 | 18.581 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 9/7/2023 | 26.90 | 5.6 | 14.834 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 9/7/2023 | 23.70 | 5.6 | 10.473 | 10 | 9/17/2014 | NA | 9/1/2016 |
| MW-18 | Arsenic | 9/7/2023 | 43.60 | 5.6 | 16.871 | 10 | 9/17/2014 | NA | 9/1/2016 |

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

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-19 | 1,1-dichloroethane | 9/17/2014 | 1.8 | 1 | --- | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 4/28/2015 | <1 | 1 | --- | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 10/6/2015 | 1.3 | 1 | --- | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 4/23/2016 | 2.2 | 1 | 0.816 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 9/1/2016 | 1.6 | 1 | 0.788 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 3/21/2017 | 2.2 | 1 | 1.435 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 10/13/2017 | 1.0 | 1 | 1.253 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 3/9/2018 | 3.1 | 1 | 1.199 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 9/6/2018 | 3.0 | 1 | 1.484 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 3/7/2019 | <1 | 1 | 0.736 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 9/26/2019 | <1 | 1 | 0.500 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 4/2/2020 | <1 | 1 | 0.042 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 9/17/2020 | 2.3 | 1 | 0.171 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 3/25/2021 | 2.6 | 1 | 0.494 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 9/16/2021 | 3.4 | 1 | 1.139 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 3/16/2022 | 4.9 | 1 | 1.932 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 9/1/2022 | 3.8 | 1 | 2.549 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 3/24/2023 | 3.1 | 1 | 2.874 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 9/7/2023 | 2.9 | 1 | 2.613 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19 | 1,1-dichloroethane | 3/18/2024 | 2.3 | 1 | 2.489 | 140 | 9/17/2014 | NA | 9/1/2016 |
| MW-19R | 1,1-dichloroethane | 11/25/2024 | 3.0 | 1 | 2.514 | 140 | 9/17/2014 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-19 | Benzene | 9/17/2014 | <1 | 1 | --- | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 4/28/2015 | <1 | 1 | --- | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 10/6/2015 | <1 | 1 | --- | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 4/23/2016 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 9/1/2016 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 3/21/2017 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 10/13/2017 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 3/9/2018 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 9/6/2018 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 3/7/2019 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 9/26/2019 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 4/2/2020 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 9/17/2020 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 3/25/2021 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 9/16/2021 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 3/16/2022 | 1.2 | 1 | 0.263 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 9/1/2022 | 1.0 | 1 | 0.381 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 3/24/2023 | <1 | 1 | 0.381 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 9/7/2023 | <1 | 1 | 0.381 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Benzene | 3/18/2024 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |
| MW-19R | Benzene | 11/25/2024 | <1 | 1 | 0.500 | 5 | 3/16/2022 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-19 | Cloroethane | 9/17/2014 | <1 | 1 | --- | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 4/28/2015 | <1 | 1 | --- | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 10/6/2015 | <1 | 1 | --- | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 4/23/2016 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 9/1/2016 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 3/21/2017 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 10/13/2017 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 3/9/2018 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 9/6/2018 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 3/7/2019 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 9/26/2019 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 4/2/2020 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 9/17/2020 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 3/25/2021 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 9/16/2021 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 3/16/2022 | 1.4 | 1 | 0.196 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 9/1/2022 | 1.2 | 1 | 0.348 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 3/24/2023 | <1 | 1 | 0.348 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 9/7/2023 | <1 | 1 | 0.348 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19 | Cloroethane | 3/18/2024 | <1 | 1 | 0.381 | 2800 | 3/16/2022 | NA | 9/1/2016 |
| MW-19R | Cloroethane | 11/25/2024 | <1 | 1 | 0.500 | 2800 | 3/16/2022 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-19 | cis-1,2-dichloroethylene | 9/17/2014 | <1 | 1 | --- | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 4/28/2015 | <1 | 1 | --- | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 10/6/2015 | <1 | 1 | --- | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 4/23/2016 | 1.3 | 1 | 0.354 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 9/1/2016 | 1.1 | 1 | 0.493 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 3/21/2017 | 1.5 | 1 | 0.726 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 10/13/2017 | <1 | 1 | 0.726 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 3/9/2018 | 1.9 | 1 | 0.733 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 9/6/2018 | 2.6 | 1 | 0.865 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 3/7/2019 | <1 | 1 | 0.466 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 9/26/2019 | <1 | 1 | 0.466 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 4/2/2020 | <1 | 1 | 0.116 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 9/17/2020 | 1.7 | 1 | 0.280 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 3/25/2021 | 2.1 | 1 | 0.486 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 9/16/2021 | 2.6 | 1 | 0.949 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 3/16/2022 | 4.7 | 1 | 1.205 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 9/1/2022 | 3.5 | 1 | 1.883 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 3/24/2023 | 2.2 | 1 | 1.945 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 9/7/2023 | 1.1 | 1 | 1.037 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19 | cis-1,2-dichloroethylene | 3/18/2024 | 1.4 | 1 | 1.121 | 70 | 4/23/2016 | NA | 9/1/2016 |
| MW-19R | cis-1,2-dichloroethylene | 11/25/2024 | 2.4 | 1 | 1.235 | 70 | 4/23/2016 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-19 | Vinyl Chloride | 9/17/2014 | <1 | 1 | --- | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 4/28/2015 | <1 | 1 | --- | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 10/6/2015 | <1 | 1 | --- | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 4/23/2016 | <1 | 1 | 0.500 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 9/1/2016 | <1 | 1 | 0.500 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 3/21/2017 | <1 | 1 | 0.500 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 10/13/2017 | <1 | 1 | 0.500 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 3/9/2018 | <1 | 1 | 0.500 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 9/6/2018 | 3.2 | 1 | 0.006 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 3/7/2019 | <1 | 1 | 0.006 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 9/26/2019 | <1 | 1 | 0.006 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 4/2/2020 | <1 | 1 | 0.006 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 9/17/2020 | 1.4 | 1 | 0.335 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 3/25/2021 | 1.2 | 1 | 0.494 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 9/16/2021 | 1.9 | 1 | 0.788 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 3/16/2022 | 1.9 | 1 | 1.181 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 9/1/2022 | 2.1 | 1 | 1.311 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 3/24/2023 | 1.0 | 1 | 1.146 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 9/7/2023 | 1.2 | 1 | 0.924 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19 | Vinyl Chloride | 3/18/2024 | <1 | 1 | 0.621 | 2 | 9/6/2018 | NA | 9/1/2016 |
| MW-19R | Vinyl Chloride | 11/25/2024 | <1 | 1 | 0.492 | 2 | 9/6/2018 | NA | 9/1/2016 |

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

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-20 | Arsenic | 9/18/2014 | 75.20 | 5.6 | --- | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 4/28/2015 | 45.50 | 5.6 | --- | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 10/6/2015 | 81.70 | 5.6 | --- | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 4/23/2016 | 81.50 | 5.6 | 56.037 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 9/1/2016 | 77.10 | 5.6 | 56.355 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 3/21/2017 | 79.10 | 5.6 | 77.961 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 10/13/2017 | 96.80 | 5.6 | 75.861 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 3/9/2018 | 83.40 | 5.6 | 76.422 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 9/6/2018 | 99.60 | 5.6 | 81.058 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 3/7/2019 | 78.40 | 5.6 | 80.666 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 9/26/2019 | 83.60 | 5.6 | 78.266 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 4/2/2020 | 65.20 | 5.6 | 69.380 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 9/17/2020 | 87.10 | 5.6 | 70.256 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 3/25/2021 | 106.00 | 5.6 | 70.997 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 9/16/2021 | 87.80 | 5.6 | 72.068 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 3/16/2022 | 127.00 | 5.6 | 79.816 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 9/1/2022 | 133.00 | 5.6 | 89.160 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 3/24/2023 | 94.60 | 5.6 | 83.892 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 9/7/2023 | 83.40 | 5.6 | 80.995 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 3/18/2024 | 112.00 | 5.6 | 80.290 | 10 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Arsenic | 9/25/2024 | 44.10 | 5.6 | 49.651 | 10 | 9/18/2014 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-20 | Barium | 9/18/2014 | 2370.0 | 744.8651 | --- | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 4/28/2015 | 2390.0 | 744.8651 | --- | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 10/6/2015 | 2490.0 | 744.8651 | --- | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 4/23/2016 | 2260.0 | 744.8651 | 2295.838 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 9/1/2016 | 2140.0 | 744.8651 | 2187.902 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 3/21/2017 | 2140.0 | 744.8651 | 2114.606 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 10/13/2017 | 2340.0 | 744.8651 | 2135.147 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 3/9/2018 | 2010.0 | 744.8651 | 2039.522 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 9/6/2018 | 2360.0 | 744.8651 | 2067.349 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 3/7/2019 | 2100.0 | 744.8651 | 2051.441 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 9/26/2019 | 2350.0 | 744.8651 | 2051.621 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 4/2/2020 | 2300.0 | 744.8651 | 2172.530 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 9/17/2020 | 1970.0 | 744.8651 | 2026.866 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 3/25/2021 | 1970.0 | 744.8651 | 1969.122 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 9/16/2021 | 2160.0 | 744.8651 | 1960.896 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 3/16/2022 | 1890.0 | 744.8651 | 1862.568 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 9/1/2022 | 2020.0 | 744.8651 | 1876.572 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 3/24/2023 | 2000.0 | 762.2866 | 1887.087 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 9/7/2023 | 1810.0 | 754.8120 | 1814.348 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 3/18/2024 | 2110.0 | 776.0663 | 1836.676 | 2000 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | Barium | 9/25/2024 | 1950.0 | 769.2044 | 1821.093 | 2000 | 9/18/2014 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
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| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-20 | acetone | 9/18/2014 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 4/28/2015 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 10/6/2015 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 4/23/2016 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 9/1/2016 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 3/21/2017 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 10/13/2017 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 3/9/2018 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 9/6/2018 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 3/7/2019 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 9/26/2019 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 4/2/2020 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 9/17/2020 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 3/25/2021 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 9/16/2021 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 3/16/2022 | 57.2 | 10 | 0.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 9/1/2022 | <10 | 10 | 0.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 3/24/2023 | <10 | 10 | 0.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 9/7/2023 | <10 | 10 | 0.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 3/18/2024 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | acetone | 9/25/2024 | <10 | 10 | 5.000 | 6300 | 9/18/2014 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-20 | benzene | 9/18/2014 | 1.9 | 1 | --- | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 4/28/2015 | 1.9 | 1 | --- | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 10/6/2015 | 2.0 | 1 | --- | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 4/23/2016 | 1.5 | 1 | 1.633 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 9/1/2016 | 1.9 | 1 | 1.633 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 3/21/2017 | 2.6 | 1 | 1.606 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 10/13/2017 | 2.0 | 1 | 1.606 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 3/9/2018 | 2.9 | 1 | 1.935 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 9/6/2018 | 3.6 | 1 | 2.199 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 3/7/2019 | 2.5 | 1 | 2.165 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 9/26/2019 | 3.1 | 1 | 2.629 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 4/2/2020 | 2.8 | 1 | 2.594 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 9/17/2020 | <1 | 1 | 1.207 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 3/25/2021 | 3.3 | 1 | 1.299 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 9/16/2021 | 3.0 | 1 | 1.289 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 3/16/2022 | 3.8 | 1 | 0.920 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 9/1/2022 | 2.6 | 1 | 2.580 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 3/24/2023 | 2.6 | 1 | 2.335 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 9/7/2023 | 2.0 | 1 | 1.682 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 3/18/2024 | 2.2 | 1 | 1.997 | 5 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | benzene | 9/25/2024 | 2.1 | 1 | 1.916 | 5 | 9/18/2014 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-20 | bis(2-ethylhexyl)phthalate | 9/18/2014 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 4/28/2015 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 10/6/2015 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 4/23/2016 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 9/1/2016 | <6 | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 3/21/2017 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 10/13/2017 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 3/9/2018 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 9/6/2018 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 3/7/2019 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 9/26/2019 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 4/2/2020 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 9/17/2020 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 3/25/2021 | NT | 6 | --- | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 9/16/2021 | 8.0 | 6 | 2.647 | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 3/16/2022 | 7.0 | 6 | 3.325 | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 9/1/2022 | <6 | 6 | 3.325 | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 3/24/2023 | NT | 6 | 3.325 | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 9/7/2023 | NT | 6 | 3.325 | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 3/18/2024 | NT | 6 | 3.325 | 6 | 9/16/2021 | NA | 9/1/2016 |
| MW-20 | bis(2-ethylhexyl)phthalate | 9/25/2024 | NT | 6 | 3.325 | 6 | 9/16/2021 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
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**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-20 | chlorobenzene | 9/18/2014 | <1 | 1 | --- | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 4/28/2015 | <1 | 1 | --- | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 10/6/2015 | <1 | 1 | --- | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 4/23/2016 | <1 | 1 | 0.500 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 9/1/2016 | <1 | 1 | 0.500 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 3/21/2017 | <1 | 1 | 0.500 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 10/13/2017 | <1 | 1 | 0.500 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 3/9/2018 | <1 | 1 | 0.500 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 9/6/2018 | 1.2 | 1 | 0.372 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 3/7/2019 | <1 | 1 | 0.372 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 9/26/2019 | <1 | 1 | 0.372 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 4/2/2020 | 1.0 | 1 | 0.492 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 9/17/2020 | 1.2 | 1 | 0.492 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 3/25/2021 | 1.1 | 1 | 0.681 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 9/16/2021 | 1.1 | 1 | 1.029 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 3/16/2022 | 1.1 | 1 | 1.066 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 9/1/2022 | 1.1 | 1 | 1.100 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 3/24/2023 | <1 | 1 | 0.597 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 9/7/2023 | 1.0 | 1 | 0.587 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 3/18/2024 | 1.2 | 1 | 0.584 | 100 | 9/6/2018 | NA | 9/1/2016 |
| MW-20 | chlorobenzene | 9/25/2024 | 1.9 | 1 | 0.467 | 100 | 9/6/2018 | NA | 9/1/2016 |

**Table 7**
**Summary of Ongoing & Newly Identified SSI**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL LCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | Prediction Limit (ug/L) | 95% LCL (ug/L) | GWPS Limit (ug/L) | SSI Initial Exceedance | Resamples Due | 5th Background Sample |
|---|---|---|---|---|---|---|---|---|---|
| MW-20 | chloroethane | 9/18/2014 | 2.1 | 1 | --- | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 4/28/2015 | 2.9 | 1 | --- | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 10/6/2015 | 2.3 | 1 | --- | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 4/23/2016 | 1.6 | 1 | 1.759 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 9/1/2016 | <1 | 1 | 0.932 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 3/21/2017 | 2.4 | 1 | 0.942 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 10/13/2017 | 2.3 | 1 | 0.942 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 3/9/2018 | 2.0 | 1 | 1.035 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 9/6/2018 | 2.8 | 1 | 2.089 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 3/7/2019 | 1.6 | 1 | 1.737 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 9/26/2019 | 2.0 | 1 | 1.664 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 4/2/2020 | 1.6 | 1 | 1.510 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 9/17/2020 | 1.6 | 1 | 1.527 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 3/25/2021 | 1.6 | 1 | 1.527 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 9/16/2021 | 1.8 | 1 | 1.563 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 3/16/2022 | 1.6 | 1 | 1.532 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 9/1/2022 | 1.7 | 1 | 1.562 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 3/24/2023 | <1 | 1 | 0.688 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 9/7/2023 | 1.5 | 1 | 0.671 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 3/18/2024 | 1.2 | 1 | 0.607 | 2800 | 9/18/2014 | NA | 9/1/2016 |
| MW-20 | chloroethane | 9/25/2024 | <1 | 1 | 0.330 | 2800 | 9/18/2014 | NA | 9/1/2016 |

Table 8 - Summary of Ongoing and Newly Identified SSL

**Table 8**
**Summary of Ongoing & Newly Identified SSL**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL UCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | 95% UCL (ug/L) | GWPS Limit (ug/L) | SSL Initial Exceedance | Compliance Date 1st Occurrence | Compliance Date Most Recent | Compliance Date Duration (years) |
|---|---|---|---|---|---|---|---|---|---|
| MW-18 | Arsenic | 9/17/2014 | 22.00 | --- | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 4/28/2015 | 45.90 | --- | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 10/6/2015 | 39.20 | --- | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 4/23/2016 | 51.80 | 50.887 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 9/1/2016 | 81.40 | 70.691 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 3/21/2017 | 49.70 | 71.208 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 10/13/2017 | 50.10 | 71.639 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 3/9/2018 | 46.10 | 71.099 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 9/6/2018 | 74.40 | 66.341 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 3/7/2019 | 87.20 | 81.474 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 9/26/2019 | 99.20 | 96.462 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 4/2/2020 | 81.70 | 94.683 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 9/17/2020 | 34.80 | 100.186 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 3/25/2021 | 9.60 | 92.132 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 9/16/2021 | 36.00 | 66.530 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 3/16/2022 | 34.70 | 43.828 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 9/1/2022 | 24.10 | 40.478 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 3/24/2023 | 67.40 | 62.519 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 9/7/2023 | 26.90 | 61.716 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 9/7/2023 | 23.70 | 60.577 | 10 | NA | NA | NA | NA |
| MW-18 | Arsenic | 9/7/2023 | 43.60 | 63.929 | 10 | NA | NA | NA | NA |

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

**Table 8**
**Summary of Ongoing & Newly Identified SSL**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL UCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | 95% UCL (ug/L) | GWPS Limit (ug/L) | SSL Initial Exceedance | Compliance Date 1st Occurrence | Compliance Date Most Recent | Compliance Date Duration (years) |
|---|---|---|---|---|---|---|---|---|---|
| MW-20 | Arsenic | 9/18/2014 | 75.20 | --- | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 4/28/2015 | 45.50 | --- | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 10/6/2015 | 81.70 | --- | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 4/23/2016 | 81.50 | 85.913 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 9/1/2016 | 77.10 | 86.545 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 3/21/2017 | 79.10 | 81.739 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 10/13/2017 | 96.80 | 91.389 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 3/9/2018 | 83.40 | 91.788 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 9/6/2018 | 99.60 | 98.392 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 3/7/2019 | 78.40 | 98.434 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 9/26/2019 | 83.60 | 94.234 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 4/2/2020 | 65.20 | 94.020 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 9/17/2020 | 87.10 | 86.894 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 3/25/2021 | 106.00 | 99.953 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 9/16/2021 | 87.80 | 100.982 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 3/16/2022 | 127.00 | 124.134 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 9/1/2022 | 133.00 | 137.740 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 3/24/2023 | 94.60 | 137.308 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 9/7/2023 | 83.40 | 138.005 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 3/18/2024 | 112.00 | 131.210 | 10 | NA | NA | NA | NA |
| MW-20 | Arsenic | 9/25/2024 | 44.10 | 117.399 | 10 | NA | NA | NA | NA |

**Table 8**
**Summary of Ongoing & Newly Identified SSL**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| KEY: | SSI | SSL UCL>GWPS |
|---|---|---|

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

| Monitoring Well | Compound | Sample Date | Each Result (ug/L) | 95% UCL (ug/L) | GWPS Limit (ug/L) | SSL Initial Exceedance | Compliance Date 1st Occurrence | Compliance Date Most Recent | Compliance Date Duration (years) |
|---|---|---|---|---|---|---|---|---|---|
| MW-20 | Barium | 9/18/2014 | 2370.0 | --- | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 4/28/2015 | 2390.0 | --- | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 10/6/2015 | 2490.0 | --- | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 4/23/2016 | 2260.0 | 2459.162 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 9/1/2016 | 2140.0 | 2452.098 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 3/21/2017 | 2140.0 | 2400.394 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 10/13/2017 | 2340.0 | 2304.853 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 3/9/2018 | 2010.0 | 2275.478 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 9/6/2018 | 2360.0 | 2357.651 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 3/7/2019 | 2100.0 | 2353.559 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 9/26/2019 | 2350.0 | 2358.379 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 4/2/2020 | 2300.0 | 2382.470 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 9/17/2020 | 1970.0 | 2333.134 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 3/25/2021 | 1970.0 | 2325.878 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 9/16/2021 | 2160.0 | 2239.104 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 3/16/2022 | 1890.0 | 2132.432 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 9/1/2022 | 2020.0 | 2143.428 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 3/24/2023 | 2000.0 | 2147.913 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 9/7/2023 | 1810.0 | 2045.652 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 3/18/2024 | 2110.0 | 2133.324 | 2000 | NA | NA | NA | NA |
| MW-20 | Barium | 9/25/2024 | 1950.0 | 2113.907 | 2000 | NA | NA | NA | NA |

Table 9 – Analytical Data Summary

## Table 9

### Analytical Data Summary for GU 3

| Constituents | Units | 8/1/2024 | 9/25/2024 |
|---|---|---|---|
| 1,1,1,2-tetrachloroethane | ug/L | <1 | <1 |
| 1,1,1-trichloroethane | ug/L | <1 | <1 |
| 1,1,2,2-tetrachloroethane | ug/L | <1 | <1 |
| 1,1,2-trichloroethane | ug/L | <1 | <1 |
| 1,1-dichloroethane | ug/L | <1 | <1 |
| 1,1-dichloroethylene | ug/L | <1 | <1 |
| 1,2,3-trichloropropane | ug/L | <1 | <1 |
| 1,2-dibromo-3-chloropropane | ug/L | <5 | <5 |
| 1,2-dibromoethane | ug/L | <1 | <1 |
| 1,2-dichlorobenzene | ug/L | <1 | <1 |
| 1,2-dichloroethane | ug/L | <1 | <1 |
| 1,2-dichloropropane | ug/L | <1 | <1 |
| 1,4-dichlorobenzene | ug/L | <1 | <1 |
| 2-butanone (mek) | ug/L | <10 | <10 |
| 2-hexanone (mbk) | ug/L | <5 | <5 |
| 4-methyl-2-pentanone (mibk) | ug/L | <5 | <5 |
| Acetone | ug/L | <10 | <10 |
| Acrylonitrile | ug/L | <5 | <5 |
| Antimony, total | ug/L | <2 | <2 |
| Arsenic, total | ug/L | <4 | <4 |
| Barium, total | ug/L | 287 | 242 |
| Benzene | ug/L | <1 | <1 |
| Beryllium, total | ug/L | <4 | <4 |
| Bromochloromethane | ug/L | <1 | <1 |
| Bromodichloromethane | ug/L | <1 | <1 |
| Bromoform | ug/L | <1 | <1 |
| Bromomethane | ug/L | <1 | <1 |
| Cadmium, total | ug/L | <.8 | <.8 |
| Carbon disulfide | ug/L | <1 | <1 |
| Carbon tetrachloride | ug/L | <1 | <1 |
| Chlorobenzene | ug/L | <1 | <1 |
| Chloroethane | ug/L | <1 | <1 |
| Chloroform | ug/L | <1 | <1 |
| Chloromethane | ug/L | <1 | <1 |
| Chromium, total | ug/L | <8 | <8 |
| Cis-1,2-dichloroethylene | ug/L | <1 | <1 |
| Cis-1,3-dichloropropene | ug/L | <1 | <1 |
| Cobalt, total | ug/L | .4 | <.4 |
| Copper, total | ug/L | <4 | <4 |
| Dibromochloromethane | ug/L | <1 | <1 |
| Dibromomethane | ug/L | <1 | <1 |
| Ethylbenzene | ug/L | <1 | <1 |
| Lead, total | ug/L | <4 | <4 |
| Methyl iodide | ug/L | <1 | <1 |
| Methylene chloride | ug/L | <5 | <5 |
| Nickel, total | ug/L | 6.1 | <4.0 |
| Selenium, total | ug/L | <4 | 4 |
| Silver, total | ug/L | <4 | <4 |
| Styrene | ug/L | <1 | <1 |
| Tetrachloroethylene | ug/L | <1 | <1 |
| Thallium, total | ug/L | <2 | <2 |
| Toluene | ug/L | <1 | <1 |
| Trans-1,2-dichloroethylene | ug/L | <1 | <1 |
| Trans-1,3-dichloropropene | ug/L | <1 | <1 |
| Trans-1,4-dichloro-2-butene | ug/L | <5 | <5 |
| Trichloroethylene | ug/L | <1 | <1 |
| Trichlorofluoromethane | ug/L | <1 | <1 |
| Vanadium, total | ug/L | <20 | <20 |
| Vinyl acetate | ug/L | <5 | <5 |
| Vinyl chloride | ug/L | <1 | <1 |
| Xylenes, total | ug/L | <2 | <2 |
| Zinc, total | ug/L | 173 | <20 |

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

## Table 9

### Analytical Data Summary for GU 4

| Constituents | Units | 8/1/2024 | 9/25/2024 |
|---|---|---|---|
| 1,1,1,2-tetrachloroethane | ug/L | <1 | <1 |
| 1,1,1-trichloroethane | ug/L | <1 | <1 |
| 1,1,2,2-tetrachloroethane | ug/L | <1 | <1 |
| 1,1,2-trichloroethane | ug/L | <1 | <1 |
| 1,1-dichloroethane | ug/L | <1 | <1 |
| 1,1-dichloroethylene | ug/L | <1 | <1 |
| 1,2,3-trichloropropane | ug/L | <1 | <1 |
| 1,2-dibromo-3-chloropropane | ug/L | <5 | <5 |
| 1,2-dibromoethane | ug/L | <1 | <1 |
| 1,2-dichlorobenzene | ug/L | <1 | <1 |
| 1,2-dichloroethane | ug/L | <1 | <1 |
| 1,2-dichloropropane | ug/L | <1 | <1 |
| 1,4-dichlorobenzene | ug/L | <1 | <1 |
| 2-butanone (mek) | ug/L | <10 | <10 |
| 2-hexanone (mbk) | ug/L | <5 | <5 |
| 4-methyl-2-pentanone (mibk) | ug/L | <5 | <5 |
| Acetone | ug/L | <10 | <10 |
| Acrylonitrile | ug/L | <5 | <5 |
| Antimony, total | ug/L | <2 | <2 |
| Arsenic, total | ug/L | <4 | <4 |
| Barium, total | ug/L | 272 | 289 |
| Benzene | ug/L | <1 | <1 |
| Beryllium, total | ug/L | <4 | <4 |
| Bromochloromethane | ug/L | <1 | <1 |
| Bromodichloromethane | ug/L | <1 | <1 |
| Bromoform | ug/L | <1 | <1 |
| Bromomethane | ug/L | <1 | <1 |
| Cadmium, total | ug/L | <.8 | <.8 |
| Carbon disulfide | ug/L | <1 | <1 |
| Carbon tetrachloride | ug/L | <1 | <1 |
| Chlorobenzene | ug/L | <1 | <1 |
| Chloroethane | ug/L | <1 | <1 |
| Chloroform | ug/L | <1 | <1 |
| Chloromethane | ug/L | <1 | <1 |
| Chromium, total | ug/L | <8 | <8 |
| Cis-1,2-dichloroethylene | ug/L | <1 | <1 |
| Cis-1,3-dichloropropene | ug/L | <1 | <1 |
| Cobalt, total | ug/L | <.4 | <.4 |
| Copper, total | ug/L | <4 | <4 |
| Dibromochloromethane | ug/L | <1 | <1 |
| Dibromomethane | ug/L | <1 | <1 |
| Ethylbenzene | ug/L | <1 | <1 |
| Lead, total | ug/L | <4 | <4 |
| Methyl iodide | ug/L | <1 | <1 |
| Methylene chloride | ug/L | <5 | <5 |
| Nickel, total | ug/L | 6.8 | <4.0 |
| Selenium, total | ug/L | <4 | <4 |
| Silver, total | ug/L | <4 | <4 |
| Styrene | ug/L | <1 | <1 |
| Tetrachloroethylene | ug/L | <1 | <1 |
| Thallium, total | ug/L | <2 | <2 |
| Toluene | ug/L | <1 | <1 |
| Trans-1,2-dichloroethylene | ug/L | <1 | <1 |
| Trans-1,3-dichloropropene | ug/L | <1 | <1 |
| Trans-1,4-dichloro-2-butene | ug/L | <5 | <5 |
| Trichloroethylene | ug/L | <1 | <1 |
| Trichlorofluoromethane | ug/L | <1 | <1 |
| Vanadium, total | ug/L | <20 | <20 |
| Vinyl acetate | ug/L | <5 | <5 |
| Vinyl chloride | ug/L | <1 | <1 |
| Xylenes, total | ug/L | <2 | <2 |
| Zinc, total | ug/L | 67.2 | 106.0 |

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

## Table 9

## Analytical Data Summary for GWD-1

| Constituents | Units | 9/18/2014 | 4/29/2015 | 10/6/2015 | 12/17/2015 | 4/23/2016 | 9/1/2016 | 3/22/2017 | 10/13/2017 | 3/9/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| 1,2,3-trichloropropane | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| 1,2-dibromo-3-chloropropane | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <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 |
| 1,4-dichlorobenzene | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| 2-butanone (mek) | ug/L | <5 | <5 | <5 | | <5 | <5 | <5 | <5 | <5 |
| 2-hexanone (mbk) | ug/L | <5 | <5 | <5 | | <5 | <5 | <5 | <5 | <5 |
| 4-methyl-2-pentanone (mibk) | ug/L | <5 | <5 | <5 | | <5 | <5 | <5 | <5 | <5 |
| Acetone | ug/L | <10.0 | <10.0 | <10.0 | | <10.0 | <10.0 | <10.0 | 20.2 | <10.0 |
| Acrylonitrile | ug/L | <5 | <5 | <5 | | <5 | <5 | <5 | <5 | <5 |
| Aluminum, total | mg/L | | | | | | | | | |
| Antimony, total | ug/L | <2 | <2 | <2 | | <2 | <2 | <2 | <2 | <2 |
| Arsenic, total | ug/L | 4.1 | 4.3 | 528.0 | 10.1 | 4.1 | 5.3 | <4.0 | <4.0 | <4.0 |
| Barium, total | ug/L | 422 | 485 | 6250 | 522 | 335 | 299 | 422 | 264 | 246 |
| Benzene | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| Beryllium, total | ug/L | <4 | <4 | <4 | | <4 | <4 | <4 | <4 | <4 |
| Bod (5 day) | mg/L | | | | | | | | | |
| Boron, total | mg/L | | | | | | | | | |
| 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 |
| Cadmium, total | ug/L | <.8 | <.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 |
| Chloride | mg/L | | | | | | | | | |
| Chlorobenzene | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| Chloroethane | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| Chloroform | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| Chloromethane | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| Chromium, total | ug/L | <8 | <8 | <8 | | <8 | <8 | <8 | <8 | <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 | 7.9 | 11.2 | 72.0 | 15.9 | 5.4 | 5.0 | 4.0 | <.8 | <.8 |
| Copper, total | ug/L | <4.0 | <4.0 | 6.7 | | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| Dibromochloromethane | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| Dibromomethane | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| Ethylbenzene | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| Fluoride | mg/L | | | | | | | | | |
| Iron, total | ug/L | | | | | | | | | |
| Lead, total | ug/L | <4 | <4 | <4 | | <4 | <4 | <4 | <4 | <4 |
| Lithium, total | mg/L | | | | | | | | | |
| Manganese, total | mg/L | | | | | | | | | |
| Methyl iodide | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| Methylene chloride | ug/L | <5 | <5 | <5 | | <5 | <5 | <5 | <5 | <5 |
| Molybdenum, total | mg/L | | | | | | | | | |
| Nickel, total | ug/L | 10.6 | 12.8 | 61.7 | | 8.6 | 8.0 | 6.6 | <4.0 | <4.0 |
| Nitrogen, ammonia | mg/L | | | | | | | | | |
| Nitrogen, kjeldahl, total | mg/L | | | | | | | | | |
| Nitrogen, Nitrate+Nitrite | mg/L | | | | | | | | | |
| Selenium, total | ug/L | <4 | <4 | <4 | | <4 | <4 | <4 | <4 | <4 |
| Silica, dissolved | mg/L | | | | | | | | | |
| Silver, total | ug/L | <4 | <4 | <4 | | <4 | <4 | <4 | <4 | <4 |
| Solids, total suspended | mg/L | 6 | 10 | 427 | | 2 | 4 | <2 | 6 | |
| Styrene | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| Sulfate | mg/L | | | | | | | | | |
| Tetrachloroethylene | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | ug/L | <4 | <4 | <4 | | <4 | <4 | <4 | <4 | <4 |
| Toluene | ug/L | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 |
| 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 | <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 | <2 | <2 | <2 | | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | ug/L | <8.0 | <20.0 | 25.7 | | <20.0 | <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 GWD-1

| Constituents | 9/6/2018 | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 3/16/2022 | 9/1/2022 | 3/24/2023 | 9/7/2023 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,1-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2,3-trichloropropane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dibromo-3-chloropropane | <1 | <1 | <1 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-dibromoethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloropropane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,4-dichlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 2-butanone (mek) | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <10 | <10 | <10 |
| 2-hexanone (mbk) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 4-methyl-2-pentanone (mibk) | <5 | <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 | <10.0 |
| Acrylonitrile | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Aluminum, total | | | | | | .251 | | | | |
| Antimony, total | <2 | <2 | <2 | <2 | <2 | | <2 | <2 | <2 | <2 |
| Arsenic, total | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | 6.8 |
| Barium, total | 202 | 266 | 271 | 268 | 270 | | 277 | 355 | 222 | 504 |
| Benzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Beryllium, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Bod (5 day) | | | | | | <5 | | | | |
| Boron, total | | | | | | <.1 | | | | |
| Bromochloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromodichloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromoform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cadmium, total | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloride | | | | | | 11.6 | | | | |
| Chlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chromium, total | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 |
| Cis-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cobalt, total | <.8 | <.8 | <.8 | <.8 | <.4 | <.4 | <.4 | .6 | <.4 | 2.8 |
| Copper, total | <4.0 | <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 | <1 |
| Dibromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Ethylbenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Fluoride | | | | | | .5 | | | | |
| Iron, total | | | | | | 196 | | | | |
| Lead, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Lithium, total | | | | | | <.05 | | | | |
| Manganese, total | | | | | | .0203 | | | | |
| Methyl iodide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Methylene chloride | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Molybdenum, total | | | | | | <.004 | | | | |
| Nickel, total | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | 7.0 |
| Nitrogen, ammonia | | | | | | <.1 | | | | |
| Nitrogen, kjeldahl, total | | | | | | .56 | | | | |
| Nitrogen, Nitrate+Nitrite | | | | | | 6.33 | | | | |
| Selenium, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Silica, dissolved | | | | | | 12.1 | | | | |
| Silver, total | <8 | <4 | <4 | <4 | <4 | | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | | | 8 | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulfate | | | | | | 10.8 | | | | |
| Tetrachloroethylene | <1 | <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 | <1 |
| Trans-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,4-dichloro-2-butene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trichlorofluoromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Vanadium, total | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| Vinyl acetate | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl chloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Xylenes, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | 10.7 | <8.0 | <8.0 | <20.0 | <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 GWD-1

| Constituents | 3/18/2024 |
|---|---|
| 1,1,1,2-tetrachloroethane | <1 |
| 1,1,1-trichloroethane | <1 |
| 1,1,2,2-tetrachloroethane | <1 |
| 1,1,2-trichloroethane | <1 |
| 1,1-dichloroethane | <1 |
| 1,1-dichloroethylene | <1 |
| 1,2,3-trichloropropane | <1 |
| 1,2-dibromo-3-chloropropane | <5 |
| 1,2-dibromoethane | <1 |
| 1,2-dichlorobenzene | <1 |
| 1,2-dichloroethane | <1 |
| 1,2-dichloropropane | <1 |
| 1,4-dichlorobenzene | <1 |
| 2-butanone (mek) | <10 |
| 2-hexanone (mbk) | <5 |
| 4-methyl-2-pentanone (mibk) | <5 |
| Acetone | <10.0 |
| Acrylonitrile | <5 |
| Aluminum, total | |
| Antimony, total | <2 |
| Arsenic, total | <4.0 |
| Barium, total | 262 |
| Benzene | <1 |
| Beryllium, total | <4 |
| Bod (5 day) | |
| Boron, total | |
| Bromochloromethane | <1 |
| Bromodichloromethane | <1 |
| Bromoform | <1 |
| Bromomethane | <1 |
| Cadmium, total | <.8 |
| Carbon disulfide | <1 |
| Carbon tetrachloride | <1 |
| Chloride | |
| Chlorobenzene | <1 |
| Chloroethane | <1 |
| Chloroform | <1 |
| Chloromethane | <1 |
| Chromium, total | <8 |
| Cis-1,2-dichloroethylene | <1 |
| Cis-1,3-dichloropropene | <1 |
| Cobalt, total | <.4 |
| Copper, total | <4.0 |
| Dibromochloromethane | <1 |
| Dibromomethane | <1 |
| Ethylbenzene | <1 |
| Fluoride | |
| Iron, total | |
| Lead, total | <4 |
| Lithium, total | |
| Manganese, total | |
| Methyl iodide | <1 |
| Methylene chloride | <5 |
| Molybdenum, total | |
| Nickel, total | <4.0 |
| Nitrogen, ammonia | |
| Nitrogen, kjeldahl, total | |
| Nitrogen, Nitrate+Nitrite | |
| Selenium, total | <4 |
| Silica, dissolved | |
| Silver, total | <4 |
| Solids, total suspended | |
| Styrene | <1 |
| Sulfate | |
| Tetrachloroethylene | <1 |
| Thallium, total | <2 |
| Toluene | <1 |
| Trans-1,2-dichloroethylene | <1 |
| Trans-1,3-dichloropropene | <1 |
| Trans-1,4-dichloro-2-butene | <5 |
| Trichloroethylene | <1 |
| Trichlorofluoromethane | <1 |
| Vanadium, total | <20 |
| Vinyl acetate | <5 |
| Vinyl chloride | <1 |
| Xylenes, total | <2 |
| Zinc, total | <20.0 |

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

## Table 9

## Analytical Data Summary for MW-1

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 11.2 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| Acrylonitrile | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Antimony, total | ug/L | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Arsenic, total | ug/L | 5.6 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| Barium, total | ug/L | 684 | 456 | 279 | 306 | 283 | 310 | 455 | 484 | 361 |
| Benzene | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 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 |
| 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 |
| Chlorobenzene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroethane | ug/L | 1.4 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 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 | 8.9 | <8.0 | <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 | <1 | <1 |
| Cis-1,3-dichloropropene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cobalt, total | ug/L | 30.6 | 6.0 | <.8 | <.8 | <.8 | <.8 | <.8 | 2.5 | <.8 |
| Copper, total | ug/L | 11.6 | <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 | 6.9 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | 7.4 |
| 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 | 60.4 | 20.6 | 10.6 | <4.0 | <4.0 | <4.0 | 13.3 | 20.1 | <4.0 |
| 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 | <8 |
| Solids, total suspended | mg/L | 226 | 142 | 27 | 11 | 9 | 350 | 187 | | |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <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 |
| 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 | 32.0 | 12.3 | 8.8 | <20.0 | <8.0 | <8.0 | <8.0 | 11.5 | 15.6 |

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

## Table 9

## Analytical Data Summary for MW-1

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 6/3/2021 | 9/16/2021 | 12/8/2021 | 3/16/2022 |
|---|---|---|---|---|---|---|---|---|---|
| 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 |
| 1,2,3-trichloropropane | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| 1,2-dibromo-3-chloropropane | <1 | <1 | <5 | <5 | <5 | | <5 | | <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 |
| 1,4-dichlorobenzene | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| 2-butanone (mek) | <5 | <5 | <5 | <5 | <5 | | <5 | | <10 |
| 2-hexanone (mbk) | <5 | <5 | <5 | <5 | <5 | | <5 | | <5 |
| 4-methyl-2-pentanone (mibk) | <5 | <5 | <5 | <5 | <5 | | <5 | | <5 |
| Acetone | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | | <10.0 | | <10.0 |
| Acrylonitrile | <5 | <5 | <5 | <5 | <5 | | <5 | | <5 |
| Antimony, total | <2 | <2 | <2 | <2 | <2 | | <2 | | <2 |
| Arsenic, total | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | | <4.0 | | <4.0 |
| Barium, total | 493 | 405 | 452 | 492 | 715 | | 467 | | 642 |
| Benzene | <1.0 | <1.0 | <1.0 | <1.0 | 1.5 | <1.0 | <1.0 | | 1.0 |
| Beryllium, total | <4 | <4 | <4 | <4 | <4 | | <4 | | <4 |
| 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 |
| Cadmium, total | <.8 | <.8 | <.8 | <.8 | <.8 | | <.8 | | <.8 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Chlorobenzene | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Chloroethane | <1.0 | <1.0 | <1.0 | <1.0 | 1.6 | <1.0 | <1.0 | | <1.0 |
| Chloroform | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Chloromethane | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Chromium, total | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | | <8.0 | | <8.0 |
| Cis-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Cobalt, total | 4.7 | 11.2 | 2.7 | <.4 | 11.8 | | .4 | | 2.1 |
| Copper, total | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | | <4.0 | | <4.0 |
| Dibromochloromethane | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Dibromomethane | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Ethylbenzene | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Lead, total | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | | <4.0 | | <4.0 |
| Methyl iodide | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Methylene chloride | <5 | <5 | <5 | <5 | <5 | | <5 | | <5 |
| Nickel, total | 16.7 | 9.1 | 5.1 | <4.0 | 28.1 | | <4.0 | | 15.5 |
| Selenium, total | <4 | <4 | <4 | <4 | <4 | | <4 | | <4 |
| Silver, total | <4 | <4 | <4 | <4 | <4 | | <4 | | <4 |
| Solids, total suspended | | | | | | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Tetrachloroethylene | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| Thallium, total | <2 | <2 | <2 | <2 | <2 | | <2 | | <2 |
| Toluene | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 |
| 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 | | 3 | <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 | <8.0 | 27.7 | <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-1

| Constituents | 6/14/2022 | 9/1/2022 | 3/24/2023 | 5/9/2023 |
|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | | <1 | <1 | |
| 1,1,1-trichloroethane | | <1 | <1 | |
| 1,1,2,2-tetrachloroethane | | <1 | <1 | |
| 1,1,2-trichloroethane | | <1 | <1 | |
| 1,1-dichloroethane | | <1 | <1 | |
| 1,1-dichloroethylene | | <1 | <1 | |
| 1,2,3-trichloropropane | | <1 | <1 | |
| 1,2-dibromo-3-chloropropane | | <5 | <5 | |
| 1,2-dibromoethane | | <1 | <1 | |
| 1,2-dichlorobenzene | | <1 | <1 | |
| 1,2-dichloroethane | | <1 | <1 | |
| 1,2-dichloropropane | | <1 | <1 | |
| 1,4-dichlorobenzene | | <1 | <1 | |
| 2-butanone (mek) | | <10 | <10 | |
| 2-hexanone (mbk) | | <5 | <5 | |
| 4-methyl-2-pentanone (mibk) | | <5 | <5 | |
| Acetone | | <10.0 | <10.0 | |
| Acrylonitrile | | <5 | <5 | |
| Antimony, total | | <2 | <2 | |
| Arsenic, total | | <4.0 | <4.0 | |
| Barium, total | | 580 | 657 | |
| Benzene | <1.0 | <1.0 | 1.7 | 1.6 |
| Beryllium, total | | <4 | <4 | |
| Bromochloromethane | | <1 | <1 | |
| Bromodichloromethane | | <1 | <1 | |
| Bromoform | | <1 | <1 | |
| Bromomethane | | <1 | <1 | |
| Cadmium, total | | <.8 | <.8 | |
| Carbon disulfide | | <1 | <1 | |
| Carbon tetrachloride | | <1 | <1 | |
| Chlorobenzene | | <1 | <1 | |
| Chloroethane | | <1.0 | 1.3 | 1.3 |
| Chloroform | | <1 | <1 | |
| Chloromethane | | <1 | <1 | |
| Chromium, total | | <8.0 | <8.0 | |
| Cis-1,2-dichloroethylene | | <1 | <1 | |
| Cis-1,3-dichloropropene | | <1 | <1 | |
| Cobalt, total | | 9.4 | 14.1 | |
| Copper, total | | <4.0 | <4.0 | |
| Dibromochloromethane | | <1 | <1 | |
| Dibromomethane | | <1 | <1 | |
| Ethylbenzene | | <1 | <1 | |
| Lead, total | | <4.0 | <4.0 | |
| Methyl iodide | | <1 | <1 | |
| Methylene chloride | | <5 | <5 | |
| Nickel, total | | 12.6 | 21.5 | |
| Selenium, total | | <4 | <4 | |
| Silver, total | | <4 | <4 | |
| Solids, total suspended | | | | |
| Styrene | | <1 | <1 | |
| Tetrachloroethylene | | <1 | <1 | |
| Thallium, total | | <2 | <2 | |
| Toluene | | <1 | <1 | |
| Trans-1,2-dichloroethylene | | <1 | <1 | |
| Trans-1,3-dichloropropene | | <1 | <1 | |
| Trans-1,4-dichloro-2-butene | | <5 | <5 | |
| Trichloroethylene | | <1 | <1 | |
| Trichlorofluoromethane | | <1 | <1 | |
| Vanadium, total | | <20 | <20 | |
| Vinyl acetate | | <5 | <5 | |
| Vinyl chloride | | <1 | <1 | |
| Xylenes, total | | <2 | <2 | |
| Zinc, total | | <20.0 | <20.0 | |

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

## Table 9

## Analytical Data Summary for MW-10

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| (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 | <1 | <1 | <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 | | | | | | | | | <.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 | 18.8 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | 18.7 | <10.0 | 11.3 |
| 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 |
| 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 9

## Analytical Data Summary for MW-10

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 | 3/24/2023 |
|---|---|---|---|---|---|---|---|---|---|
| (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 | <5 | <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 | <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 | | | | | | | |
| 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 | <10 | <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 | 10.7 | <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 | | | | | | | |
| Allyl chloride | | <1 | | | | | | | |
| Alpha-bhc | | <.05 | | | | | | | |
| Anthracene | | <8 | | | | | | | |

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

## Table 9

## Analytical Data Summary for MW-10

| Constituents | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|
| (3+4)-methylphenol | | | |
| 1,1,1,2-tetrachloroethane | <1 | <1 | <1 |
| 1,1,1-trichloroethane | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | <1 | <1 | <1 |
| 1,1,2-trichloroethane | <1 | <1 | <1 |
| 1,1-dichloroethane | <1 | <1 | <1 |
| 1,1-dichloroethylene | <1 | <1 | <1 |
| 1,1-dichloropropene | | | <1 |
| 1,2,3-trichloropropane | <1 | <1 | <1 |
| 1,2,4,5-tetrachlorobenzene | | | |
| 1,2,4-trichlorobenzene | | | <1 |
| 1,2-dibromo-3-chloropropane | <5 | <5 | <1 |
| 1,2-dibromoethane | <1 | <1 | <1 |
| 1,2-dichlorobenzene | <1 | <1 | <1 |
| 1,2-dichloroethane | <1 | <1 | <1 |
| 1,2-dichloropropane | <1 | <1 | <1 |
| 1,2-dinitrobenzene | | | |
| 1,3,5-trinitrobenzene | | | |
| 1,3-dichlorobenzene | | | <1 |
| 1,3-dichloropropane | | | <1 |
| 1,3-dinitrobenzene | | | |
| 1,4-dichlorobenzene | <1 | <1 | <1 |
| 1,4-naphthoquinone | | | |
| 1,4-phenylenediamine | | | |
| 1-naphthylamine | | | |
| 2,2-dichloropropane | | | <1 |
| 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 | <5 |
| 2-chloronaphthalene | | | |
| 2-chlorophenol | | | |
| 2-hexanone (mbk) | <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 |
| 4-nitroaniline | | | |
| 4-nitrophenol | | | |
| 5-nitro-o-toluidine | | | |
| 7,12-dimethylbenz(a)anthracene | | | |
| Acenaphthene | | | |
| Acenaphthylene | | | |
| Acetone | <10.0 | <10.0 | <10.0 |
| Acetonitrile | | | <10 |
| Acetophenone | | | |
| Acrolein | | | <10 |
| Acrylonitrile | <5 | <5 | <5 |
| Aldrin | | | |
| Allyl chloride | | | <1 |
| Alpha-bhc | | | |
| Anthracene | | | |

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

## Table 9

## Analytical Data Summary for MW-10

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 18.2 | 6.5 | 7.1 | 16.7 | 9.2 | <4.0 | 18.2 | 7.7 | 47.8 |
| Azobenzene | ug/L | | | | | | | | | <8 |
| Barium, total | ug/L | 651 | 549 | 481 | 859 | 420 | 370 | 685 | 342 | 761 |
| Benzene | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.4 |
| 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 | | | | | | | | | 8 |
| 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 |
| 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 |
| Chlorobenzene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzilate | ug/L | | | | | | | | | <8 |
| 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 |
| Chloroprene | ug/L | | | | | | | | | <1 |
| Chromium, total | ug/L | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 |
| 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 | 27.8 | 18.4 | 6.0 | 16.3 | 2.8 | 3.8 | 10.7 | 3.2 | 13.5 |
| Copper, total | ug/L | 7.0 | <4.0 | <4.0 | 4.9 | <4.0 | <4.0 | <4.0 | <4.0 | 5.0 |
| 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 | | | | | | | | | <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 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Famphur | ug/L | | | | | | | | | <.4 |
| Fluoranthene | ug/L | | | | | | | | | <8 |
| Fluorene | ug/L | | | | | | | | | <8 |
| Gamma-bhc (lindane) | ug/L | | | | | | | | | <.05 |
| Heptachlor | ug/L | | | | | | | | | <.05 |
| Heptachlor epoxide | ug/L | | | | | | | | | <.05 |
| Hexachlorobenzene | ug/L | | | | | | | | | <.05 |

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

## Table 9

## Analytical Data Summary for MW-10

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 | 3/24/2023 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 4.1 | 11.3 | 38.6 | <4.0 | 8.7 | <4.0 | 26.6 | <4.0 | <4.0 |
| Azobenzene | | <8 | | | | | | | |
| Barium, total | 661 | 483 | 871 | 550 | 1070 | 449 | 1950 | 441 | 524 |
| Benzene | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 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 | <6 | 14 | <6 | <6 | <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 | 5.9 | <.8 | <.8 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlordane | | <.1 | | | | | | | |
| Chlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzilate | | <8 | | | | | | | |
| 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 |
| Chloroprene | | <1 | | | | | | | |
| Chromium, total | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | 37.9 | <8.0 | <8.0 |
| 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 | 3.0 | 2.0 | 4.0 | 2.7 | 11.2 | 2.5 | 128.0 | 1.7 | 3.0 |
| Copper, total | <4.0 | <4.0 | <4.0 | <4.0 | 7.0 | <4.0 | 154.0 | <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 | | | | | | | |
| 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 | <1 |
| Famphur | | <.4 | | | | | | | |
| Fluoranthene | | <8 | | | | | | | |
| Fluorene | | <8 | | | | | | | |
| Gamma-bhc (lindane) | | <.05 | | | | | | | |
| Heptachlor | | <.05 | | | | | | | |
| Heptachlor epoxide | | <.05 | | | | | | | |
| Hexachlorobenzene | | <.05 | | | | | | | |

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

## Table 9

## Analytical Data Summary for MW-10

| Constituents | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|
| Antimony, total | <2 | <2 | <2 |
| Arochlor 1016 | | | |
| Arochlor 1221 | | | |
| Arochlor 1232 | | | |
| Arochlor 1242 | | | |
| Arochlor 1248 | | | |
| Arochlor 1254 | | | |
| Arochlor 1260 | | | |
| Arsenic, total | <4.0 | <4.0 | 5.2 |
| Azobenzene | | | |
| Barium, total | 553 | 465 | 575 |
| Benzene | <1.0 | <1.0 | <1.0 |
| Benzo(a)anthracene | | | |
| Benzo(a)pyrene | | | |
| Benzo(b)fluoranthene | | | |
| Benzo(g,h,i)perylene | | | |
| Benzo(k)fluoranthene | | | |
| Benzyl alcohol | | | |
| Beryllium, total | <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 |
| Bromodichloromethane | <1 | <1 | <1 |
| Bromoform | <1 | <1 | <1 |
| Bromomethane | <1 | <1 | <1 |
| Butyl benzyl phthalate | | | |
| Cadmium, total | <.8 | <.8 | <.8 |
| Carbon disulfide | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 |
| Chlordane | | | |
| Chlorobenzene | <1 | <1 | <1 |
| Chlorobenzilate | | | |
| Chloroethane | <1 | <1 | <1 |
| Chloroform | <1 | <1 | <1 |
| Chloromethane | <1 | <1 | <1 |
| Chloroprene | | | <1 |
| Chromium, total | <8.0 | <8.0 | <8.0 |
| Chrysene | | | |
| Cis-1,2-dichloroethylene | <1 | <1 | <1 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 |
| Cobalt, total | 1.7 | <.4 | 2.4 |
| Copper, total | <4.0 | <4.0 | <4.0 |
| Cyanide, total | | | |
| Delta-bhc | | | |
| Diallate | | | |
| Dibenzo(a,h)anthracene | | | |
| Dibenzofuran | | | |
| Dibromochloromethane | <1 | <1 | <1 |
| Dibromomethane | <1 | <1 | <1 |
| Dichlorodifluoromethane | | | <1 |
| 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 | | | |
| Ethyl methacrylate | | | <10 |
| Ethyl methanesulfonate | | | |
| Ethylbenzene | <1 | <1 | <1 |
| Famphur | | | |
| Fluoranthene | | | |
| Fluorene | | | |
| Gamma-bhc (lindane) | | | |
| Heptachlor | | | |
| Heptachlor epoxide | | | |
| Hexachlorobenzene | | | |

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

## Table 9

## Analytical Data Summary for MW-10

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| 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 | <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 | 30.6 | 21.5 | 8.6 | 23.3 | 4.5 | 9.8 | 15.0 | 7.6 | 15.2 |
| 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 |
| 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 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| Silver, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <8 |
| Solids, total suspended | mg/L | 97 | 19 | 12 | 21 | 29 | 112 | 66 | | |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 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 |
| Xylenes, total | ug/L | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | ug/L | 16.4 | 11.1 | 19.7 | <20.0 | <8.0 | <8.0 | <8.0 | <8.0 | 34.9 |

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

## Table 9

## Analytical Data Summary for MW-10

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 | 3/24/2023 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 65.8 | <4.0 | <4.0 |
| Mercury, total | | <.5 | | | | | | | |
| Methacrylonitrile | | <1 | | | | | | | |
| 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 | 6.8 | <4.0 | 8.8 | 4.7 | 15.4 | <4.0 | 338.0 | <4.0 | 7.5 |
| 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 | | | | | | | |
| Pronamide | | <8 | | | | | | | |
| Propionitrile | | <19 | | | | | | | |
| Pyrene | | <8 | | | | | | | |
| Safrole | | <8 | | | | | | | |
| Selenium, total | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | 8.4 | <4.0 | <4.0 |
| Silver, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | | | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulfide, total | | <.1 | | | | | | | |
| Tetrachloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | <2 | <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 | 108 | <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 | <8.0 | 17.7 | <20.0 | <20.0 | <20.0 | <20.0 | 207.0 | <20.0 | <20.0 |

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

## Table 9

### Analytical Data Summary for MW-10

| Constituents | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|
| Hexachlorobutadiene | | | |
| Hexachlorocyclopentadiene | | | |
| Hexachloroethane | | | |
| Hexachloropropene | | | |
| Indeno(1,2,3-cd)pyrene | | | |
| Isobutanol | | | <1 |
| Isodrin | | | |
| Isophorone | | | |
| Isosafrole | | | |
| Kepone | | | |
| Lead, total | <4.0 | <4.0 | <4.0 |
| Mercury, total | | | <.5 |
| Methacrylonitrile | | | <1 |
| Methapyrilene | | | |
| Methoxychlor | | | |
| Methyl iodide | <1 | <1 | <2 |
| Methyl methacrylate | | | <1 |
| Methyl methanesulfonate | | | |
| Methyl parathion | | | |
| Methylene chloride | <5 | <5 | <5 |
| Naphthalene | | | |
| Nickel, total | <4.0 | <4.0 | 11.7 |
| 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 | | | |
| Phenacetin | | | |
| Phenanthrene | | | |
| Phenol | | | |
| Phorate | | | |
| Pronamide | | | |
| Propionitrile | | | <10 |
| Pyrene | | | |
| Safrole | | | |
| Selenium, total | <4.0 | <4.0 | <4.0 |
| Silver, total | <4 | <4 | <4 |
| Solids, total suspended | | | |
| Styrene | <1 | <1 | <1 |
| Sulfide, total | | | <.1 |
| Tetrachloroethylene | <1 | <1 | <1 |
| Thallium, total | <2 | <2 | <2 |
| Thionazin | | | |
| Tin, total | | | <20 |
| Toluene | <1 | <1 | <1 |
| Toxaphene | | | |
| Trans-1,2-dichloroethylene | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | <1 | <1 | <1 |
| Trans-1,4-dichloro-2-butene | <5 | <5 | <5 |
| Trichloroethylene | <1 | <1 | <1 |
| Trichlorofluoromethane | <1 | <1 | <1 |
| Vanadium, total | <20 | <20 | <20 |
| Vinyl acetate | <5 | <5 | <5 |
| Vinyl chloride | <1 | <1 | <1 |
| Xylenes, total | <2 | <2 | <2 |
| Zinc, total | <20.0 | 28.3 | <20.0 |

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

## Table 9

## Analytical Data Summary for MW-11

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 12.1 | <10.0 | <10.0 |
| Acrylonitrile | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 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 | 452 | 539 | 379 | 275 | 263 | 453 | 390 | 475 | 314 |
| 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 |
| 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 |
| 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 | <.8 | 2.0 | <.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 |
| 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 | 7.7 | <4.0 | <4.0 | <4.0 | 4.5 | <4.0 | 4.3 | <4.0 |
| 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 | <8 |
| Solids, total suspended | mg/L | 14 | 27 | 18 | 16 | 13 | 113 | 143 | | |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <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 |
| 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 | <8.0 | 12.8 | <8.0 | <20.0 | <8.0 | <8.0 | <8.0 | 13.9 | 14.0 |

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

## Table 9

## Analytical Data Summary for MW-11

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 | 3/24/2023 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | <5 | <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 | <10 | <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 |
| Antimony, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Arsenic, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Barium, total | 354 | 234 | 337 | 399 | 292 | 428 | 660 | 402 | 394 |
| 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 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 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 | 4.3 | .5 | <.4 |
| Copper, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| 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 |
| 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 | 4.8 | <4.0 | 4.6 | 9.8 | 6.8 | <4.0 |
| Selenium, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Silver, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | | | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Tetrachloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | <2 | <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 | <8.0 | 27.6 | <20.0 | <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-13

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 6/13/2016 | 9/1/2016 | 3/22/2017 | 10/13/2017 | 1/12/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 16.9 | |
| Acrylonitrile | ug/L | <5 | <5 | <5 | <5 | | <5 | <5 | <5 | |
| Antimony, total | ug/L | <2 | <2 | <2 | <2 | | <2 | <2 | <2 | |
| Arsenic, total | ug/L | <4 | <4 | <4 | <4 | | <4 | <4 | <4 | |
| Barium, total | ug/L | 42.7 | 66.1 | 107.0 | 50.6 | | 135.0 | 53.8 | 52.2 | |
| Benzene | ug/L | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | |
| Beryllium, total | ug/L | <4 | <4 | <4 | <4 | | <4 | <4 | <4 | |
| 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 | <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 | <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 | 1.1 | 1.3 | <.8 | <.8 | | <.8 | <.8 | <.8 | |
| Copper, total | ug/L | <4.0 | <4.0 | <4.0 | <4.0 | | <4.0 | <4.0 | <4.0 | |
| Dibromochloromethane | ug/L | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | |
| Dibromomethane | ug/L | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | |
| Ethylbenzene | ug/L | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | |
| Lead, total | ug/L | <4.0 | <4.0 | 9.6 | <4.0 | | <4.0 | <4.0 | <4.0 | |
| 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 | 5.0 | 5.1 | 4.4 | 4.7 | | <4.0 | <4.0 | 4.1 | |
| Selenium, total | ug/L | <4.0 | <4.0 | <4.0 | 4.8 | <4.0 | <4.0 | 4.0 | 4.1 | <4.0 |
| Silver, total | ug/L | <4 | <4 | <4 | <4 | | <4 | <4 | <4 | |
| Solids, total suspended | mg/L | 12 | 15 | 9 | 2 | | 4 | 4 | 44 | |
| Styrene | ug/L | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | |
| 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 | <8.0 | <8.0 | 12.1 | <20.0 | | <8.0 | <8.0 | <8.0 | |

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

## Table 9

## Analytical Data Summary for MW-13

| Constituents | 3/9/2018 | 9/6/2018 | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,1-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2,3-trichloropropane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dibromo-3-chloropropane | <1 | <1 | <1 | <1 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-dibromoethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloropropane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,4-dichlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 2-butanone (mek) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <10 |
| 2-hexanone (mbk) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 4-methyl-2-pentanone (mibk) | <5 | <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 | <10.0 |
| Acrylonitrile | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Antimony, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Arsenic, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Barium, total | 48.9 | 53.7 | 53.6 | 56.7 | 52.4 | 62.4 | 60.1 | 50.1 | 50.6 | 80.9 |
| Benzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Beryllium, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Bromochloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromodichloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromoform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cadmium, total | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chromium, total | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 |
| Cis-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cobalt, total | <.8 | <.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 | 6.8 | <4.0 | <4.0 |
| Dibromochloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Dibromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Ethylbenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Lead, total | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| Methyl iodide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Methylene chloride | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Nickel, total | 4.1 | <4.0 | 4.9 | <4.0 | <4.0 | <4.0 | <4.0 | 7.2 | <4.0 | 9.1 |
| Selenium, total | <4.0 | 4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| Silver, total | <4 | <8 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | | | | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Tetrachloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | <4 | <4 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Toluene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,4-dichloro-2-butene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trichlorofluoromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Vanadium, total | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| Vinyl acetate | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl chloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Xylenes, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | <8.0 | <8.0 | <8.0 | <8.0 | <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-13

| Constituents | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| 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 |
| Antimony, total | <2 | <2 | <2 | <2 |
| Arsenic, total | <4 | <4 | <4 | <4 |
| Barium, total | 69.6 | 50.7 | 59.0 | 66.4 |
| 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 |
| Carbon disulfide | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 |
| 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 | <4.0 | <4.0 | <4.0 | <4.0 |
| Methyl iodide | <1 | <1 | <1 | <1 |
| Methylene chloride | <5 | <5 | <5 | <5 |
| Nickel, total | <4.0 | 4.5 | <4.0 | <4.0 |
| Selenium, total | <4.0 | <4.0 | <4.0 | <4.0 |
| Silver, total | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | |
| Styrene | <1 | <1 | <1 | <1 |
| 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-14

| Constituents | Units | 9/18/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/22/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Acrylonitrile | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 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 | 275 | 246 | 186 | 151 | 129 | 135 | 146 | 137 | 147 |
| 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 |
| 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 |
| 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 | 1.5 | 1.4 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 |
| Copper, total | ug/L | 4.6 | <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 | <4.0 | <4.0 | 5.6 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | 11.3 |
| 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 | 5.5 | 6.9 | 6.5 | 6.6 | 5.3 | <4.0 | <4.0 | <4.0 | 4.5 |
| 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 | <8 |
| Solids, total suspended | mg/L | 67 | 47 | 12 | 10 | 11 | 400 | 120 | | |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <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 |
| 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 | 11.0 | 8.6 | <8.0 | <20.0 | <8.0 | <8.0 | <8.0 | <8.0 | 8.1 |

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

## Table 9

## Analytical Data Summary for MW-14

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 | 11/29/2022 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | <5 | <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 | <10 | <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 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | |
| Acrylonitrile | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | |
| Antimony, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | |
| Arsenic, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | |
| Barium, total | 156 | 172 | 162 | 160 | 159 | 152 | 169 | 149 | |
| 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 | 3.9 | <.8 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| 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 | .5 | <.4 | .4 | .8 | |
| Copper, total | <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 | |
| Dibromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Ethylbenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Lead, total | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | |
| 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 | 4.1 | 7.7 | 5.4 | 5.7 | 6.1 | 9.8 | |
| Selenium, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | |
| Silver, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | |
| Solids, total suspended | | | | | | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Tetrachloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Thallium, total | <2 | <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 | <8.0 | <8.0 | <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-14

| Constituents | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| 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 | <10 | <10 | <10 |
| Acrylonitrile | <5 | <5 | <5 | <5 |
| Antimony, total | <2 | <2 | <2 | <2 |
| Arsenic, total | <4 | <4 | <4 | <4 |
| Barium, total | 124 | 110 | 137 | 112 |
| 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 | 3.5 |
| Carbon disulfide | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 |
| 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 | .5 | <.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 | <4.0 | <4.0 | <4.0 | <4.0 |
| Methyl iodide | <1 | <1 | <1 | <1 |
| Methylene chloride | <5 | <5 | <5 | <5 |
| Nickel, total | <4.0 | 7.0 | <4.0 | 4.1 |
| Selenium, total | <4 | <4 | <4 | <4 |
| Silver, total | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | |
| Styrene | <1 | <1 | <1 | <1 |
| 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-16

| Constituents | Units | 9/18/2014 | 4/29/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/22/2017 | 10/13/2017 | 1/12/2018 |
|---|---|---|---|---|---|---|---|---|---|
| (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 | 2.0 | 2.2 | 1.9 | 2.5 | 1.9 | 1.6 | 1.8 | |
| 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 | <1.0 | 1.5 | 2.0 | 1.6 | 2.1 | 2.6 | 2.0 | |
| 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 | <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 | 13.1 | |
| 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 | | | |
| 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 9

## Analytical Data Summary for MW-16

| Constituents | 3/9/2018 | 9/6/2018 | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| (3+4)-methylphenol | | | | | | | | <8 | | |
| 1,1,1,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,1-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethane | 2.4 | <1.0 | 1.7 | 1.3 | <1.0 | <1.0 | 1.2 | <1.0 | 1.9 | <1.0 |
| 1,1-dichloroethylene | <1 | <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 |
| 1,2,4,5-tetrachlorobenzene | | | | | | | | <8 | | |
| 1,2,4-trichlorobenzene | | | | | | | | <1 | | |
| 1,2-dibromo-3-chloropropane | <1 | <1 | <1 | <1 | <5 | <5 | <5 | <1 | <5 | <5 |
| 1,2-dibromoethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloropropane | <1 | <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 | 1.8 | 2.7 | 3.8 | <1.0 | <1.0 | 1.8 | 1.8 | 2.2 | 2.1 | <1.0 |
| 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 | <5 | <10 | <10 |
| 2-chloronaphthalene | | | | | | | | <8 | | |
| 2-chlorophenol | | | | | | | | <8 | | |
| 2-hexanone (mbk) | <5 | <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 | <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 | <10.0 |
| Acetonitrile | | | | | | | | <10 | | |
| Acetophenone | | | | | | | | <8 | | |
| Acrolein | | | | | | | | <10 | | |
| Acrylonitrile | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Aldrin | | | | | | | | <.05 | | |
| Allyl chloride | | | | | | | | <1 | | |
| Alpha-bhc | | | | | | | | <.05 | | |
| Anthracene | | | | | | | | <8 | | |

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

## Table 9

## Analytical Data Summary for MW-16

| Constituents | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| (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 | <1.0 | <1.0 | 1.0 | <1.0 |
| 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 | <1.0 | <1.0 | 1.8 | <1.0 |
| 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 | | | | |
| Allyl chloride | | | | |
| Alpha-bhc | | | | |
| Anthracene | | | | |

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

## Table 9

## Analytical Data Summary for MW-16

| Constituents | Units | 9/18/2014 | 4/29/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/22/2017 | 10/13/2017 | 1/12/2018 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 34.3 | 38.5 | <4.0 | <4.0 | <4.0 | 9.3 | 19.0 | |
| Azobenzene | ug/L | | | | | <8 | | | |
| Barium, total | ug/L | 1130 | 1370 | 790 | 779 | 711 | 867 | 1020 | 818 |
| Benzene | ug/L | <1.0 | <1.0 | 1.0 | <1.0 | 1.2 | 1.3 | 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 | | | | | <8 | | | |
| 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 | |
| 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 | | | |
| Chlorobenzene | ug/L | 4.3 | 4.4 | 4.9 | 3.5 | 6.0 | 6.4 | 5.1 | |
| 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 | <1.0 | <1.0 | <1.0 | <1.0 | 1.1 | <1.0 | 1.2 | |
| Cis-1,3-dichloropropene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Cobalt, total | ug/L | 2.5 | 2.2 | 2.1 | 1.9 | 1.6 | 1.5 | 1.5 | |
| 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 | |
| Dibromomethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Dichlorodifluoromethane | ug/L | 3.6 | 2.6 | 2.9 | 3.2 | 3.6 | 2.2 | 1.6 | |
| 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 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Famphur | ug/L | | | | | <.4 | | | |
| Fluoranthene | ug/L | | | | | <8 | | | |
| Fluorene | ug/L | | | | | <8 | | | |
| Gamma-bhc (lindane) | ug/L | | | | | <.05 | | | |
| Heptachlor | ug/L | | | | | <.05 | | | |
| Heptachlor epoxide | ug/L | | | | | <.05 | | | |
| Hexachlorobenzene | ug/L | | | | | <.05 | | | |

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

## Table 9

## Analytical Data Summary for MW-16

| Constituents | 3/9/2018 | 9/6/2018 | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | <4.0 | <4.0 | | 6.3 | 9.3 | 6.5 | 21.2 | 10.4 | 26.5 | 4.7 |
| Azobenzene | | | | | | | | <8 | | |
| Barium, total | 668 | 719 | | 796 | 925 | 806 | 1010 | 798 | 1010 | 655 |
| Benzene | <1.0 | 1.7 | 2.1 | <1.0 | 1.6 | <1.0 | 1.5 | 1.3 | 1.6 | <1.0 |
| 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 | | |
| Bromochloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromodichloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromoform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Butyl benzyl phthalate | | | | | | | | <8 | | |
| Cadmium, total | <.8 | <.8 | | <.8 | <.8 | <.8 | .9 | <.8 | <.8 | <.8 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlordane | | | | | | | | <.1 | | |
| Chlorobenzene | 4.7 | 8.1 | 9.7 | 4.8 | 8.8 | 4.7 | 5.8 | 7.3 | 5.2 | 2.1 |
| Chlorobenzilate | | | | | | | | <8 | | |
| Chloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloromethane | <1 | <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 | <1.0 | <1.0 | 1.4 | <1.0 | <1.0 | <1.0 | 1.3 | <1.0 | 2.1 | <1.0 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cobalt, total | 1.3 | 1.2 | | 1.1 | 1.3 | 1.2 | 1.1 | 1.0 | 1.6 | .7 |
| Copper, total | <4 | <4 | | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| 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 | <1 |
| Dibromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Dichlorodifluoromethane | 3.0 | <1.0 | 4.6 | <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 | <1 | <1 |
| Famphur | | | | | | | | <.4 | | |
| Fluoranthene | | | | | | | | <8 | | |
| Fluorene | | | | | | | | <8 | | |
| Gamma-bhc (lindane) | | | | | | | | <.05 | | |
| Heptachlor | | | | | | | | <.05 | | |
| Heptachlor epoxide | | | | | | | | <.05 | | |
| Hexachlorobenzene | | | | | | | | <.05 | | |

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

## Table 9

## Analytical Data Summary for MW-16

| Constituents | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| Antimony, total | <2 | <2 | <2 | <2 |
| Arochlor 1016 | | | | |
| Arochlor 1221 | | | | |
| Arochlor 1232 | | | | |
| Arochlor 1242 | | | | |
| Arochlor 1248 | | | | |
| Arochlor 1254 | | | | |
| Arochlor 1260 | | | | |
| Arsenic, total | 4.3 | <4.0 | 20.4 | 26.2 |
| Azobenzene | | | | |
| Barium, total | 481 | 311 | 713 | 756 |
| Benzene | <1.0 | <1.0 | 1.5 | <1.0 |
| 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 |
| Carbon disulfide | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 |
| Chlordane | | | | |
| Chlorobenzene | 3.0 | <1.0 | 5.2 | 2.3 |
| Chlorobenzilate | | | | |
| Chloroethane | <1 | <1 | <1 | <1 |
| Chloroform | <1 | <1 | <1 | <1 |
| Chloromethane | <1 | <1 | <1 | <1 |
| Chloroprene | | | | |
| Chromium, total | <8 | <8 | <8 | <8 |
| Chrysene | | | | |
| Cis-1,2-dichloroethylene | <1.0 | <1.0 | <1.0 | <1.0 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 | <1 |
| Cobalt, total | .5 | .4 | .9 | 1.7 |
| Copper, total | <4 | <4 | <4 | <4 |
| 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 | | | | |
| Ethyl methacrylate | | | | |
| Ethyl methanesulfonate | | | | |
| Ethylbenzene | <1 | <1 | <1 | <1 |
| Famphur | | | | |
| Fluoranthene | | | | |
| Fluorene | | | | |
| Gamma-bhc (lindane) | | | | |
| Heptachlor | | | | |
| Heptachlor epoxide | | | | |
| Hexachlorobenzene | | | | |

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

## Table 9

## Analytical Data Summary for MW-16

| Constituents | Units | 9/18/2014 | 4/29/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/22/2017 | 10/13/2017 | 1/12/2018 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | |
| 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 | |
| Naphthalene | ug/L | | | | | <8 | | | |
| Nickel, total | ug/L | 26.9 | 29.5 | 22.9 | 22.9 | 18.6 | 22.4 | 30.3 | |
| 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 | | | |
| 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 suspended | mg/L | 96 | 94 | 15 | 7 | 13 | 20 | 210 | |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| 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 | | | | | <.4 | | | |
| 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 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | |
| Xylenes, total | ug/L | <2 | <2 | <2 | <2 | <2 | <2 | <2 | |
| Zinc, total | ug/L | <8.0 | <8.0 | <8.0 | <20.0 | 8.4 | <8.0 | <8.0 | |

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

## Table 9

## Analytical Data Summary for MW-16

| Constituents | 3/9/2018 | 9/6/2018 | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | <4 |
| Mercury, total | | | | | | | | <.5 | | |
| Methacrylonitrile | | | | | | | | <1 | | |
| Methapyrilene | | | | | | | | <8 | | |
| Methoxychlor | | | | | | | | <.05 | | |
| Methyl iodide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <2 | <1 | <1 |
| Methyl methacrylate | | | | | | | | <1 | | |
| Methyl methanesulfonate | | | | | | | | <8 | | |
| Methyl parathion | | | | | | | | <.4 | | |
| Methylene chloride | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Naphthalene | | | | | | | | <8 | | |
| Nickel, total | 20.8 | 25.9 | | 24.7 | 29.2 | 25.9 | 28.8 | 27.0 | 28.8 | 27.5 |
| 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 | | |
| Pronamide | | | | | | | | <8 | | |
| Propionitrile | | | | | | | | <10 | | |
| Pyrene | | | | | | | | <8 | | |
| Safrole | | | | | | | | <8 | | |
| Selenium, total | <4 | <4 | | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Silver, total | <4 | <8 | | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | | | | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulfide, total | | | | | | | | <.1 | | |
| Tetrachloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | <4 | <4 | | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Thionazin | | | | | | | | <.4 | | |
| Tin, total | | | | | | | | <20 | | |
| Toluene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Toxaphene | | | | | | | | <.2 | | |
| Trans-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,4-dichloro-2-butene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trichlorofluoromethane | <1 | <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 | <5 |
| Vinyl chloride | <1.0 | <1.0 | 2.5 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Xylenes, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | <8.0 | 28.5 | | 8.4 | <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-16

| Constituents | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| Hexachlorobutadiene | | | | |
| Hexachlorocyclopentadiene | | | | |
| Hexachloroethane | | | | |
| Hexachloropropene | | | | |
| Indeno(1,2,3-cd)pyrene | | | | |
| Isobutanol | | | | |
| Isodrin | | | | |
| Isophorone | | | | |
| Isosafrole | | | | |
| Kepone | | | | |
| Lead, total | <4 | <4 | <4 | <4 |
| Mercury, total | | | | |
| Methacrylonitrile | | | | |
| Methapyrilene | | | | |
| Methoxychlor | | | | |
| Methyl iodide | <1 | <1 | <1 | <1 |
| Methyl methacrylate | | | | |
| Methyl methanesulfonate | | | | |
| Methyl parathion | | | | |
| Methylene chloride | <5 | <5 | <5 | <5 |
| Naphthalene | | | | |
| Nickel, total | 24.1 | 28.7 | 26.1 | 36.0 |
| 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 | | | | |
| Phenacetin | | | | |
| Phenanthrene | | | | |
| Phenol | | | | |
| Phorate | | | | |
| Pronamide | | | | |
| Propionitrile | | | | |
| Pyrene | | | | |
| Safrole | | | | |
| Selenium, total | <4 | <4 | <4 | <4 |
| Silver, total | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | |
| Styrene | <1 | <1 | <1 | <1 |
| 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 | <1.0 | <1.0 | <1.0 | <1.0 |
| 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-17

| Constituents | Units | 9/18/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Acrylonitrile | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 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 | 91.4 | 106.0 | 85.3 | 99.2 | 88.5 | 93.7 | 89.5 | 86.5 | 83.2 |
| 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 | 1.4 | <.8 | <.8 |
| 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 |
| 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 | <.8 | <.8 | <.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 |
| 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 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| 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 | <8 |
| Solids, total suspended | mg/L | 16 | 7 | 2 | 2 | 2 | 59 | 19 | | |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <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 |
| 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 | 8.1 | <8.0 | <8.0 | <20.0 | <8.0 | <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-17

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 | 3/24/2023 | 9/7/2023 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,1-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2,3-trichloropropane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dibromo-3-chloropropane | <1 | <1 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-dibromoethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloropropane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,4-dichlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 2-butanone (mek) | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <10 | <10 | <10 |
| 2-hexanone (mbk) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 4-methyl-2-pentanone (mibk) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Acetone | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Acrylonitrile | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Antimony, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Arsenic, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Barium, total | 99.9 | 95.8 | 102.0 | 94.6 | 92.2 | 89.6 | 89.9 | 90.3 | 84.3 | 92.4 |
| Benzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Beryllium, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Bromochloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromodichloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromoform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cadmium, total | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chromium, total | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 |
| Cis-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cobalt, total | <.8 | <.8 | <.8 | <.4 | <.4 | <.4 | <.4 | <.4 | <.4 | <.4 |
| Copper, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Dibromochloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Dibromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Ethylbenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Lead, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Methyl iodide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Methylene chloride | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Nickel, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Selenium, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Silver, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | | | | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Tetrachloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Toluene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,4-dichloro-2-butene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trichlorofluoromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Vanadium, total | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| Vinyl acetate | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl chloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Xylenes, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | <8.0 | 8.5 | <20.0 | <20.0 | <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-17

| Constituents | 3/18/2024 | 9/25/2024 |
|---|---|---|
| 1,1,1,2-tetrachloroethane | <1 | <1 |
| 1,1,1-trichloroethane | <1 | <1 |
| 1,1,2,2-tetrachloroethane | <1 | <1 |
| 1,1,2-trichloroethane | <1 | <1 |
| 1,1-dichloroethane | <1 | <1 |
| 1,1-dichloroethylene | <1 | <1 |
| 1,2,3-trichloropropane | <1 | <1 |
| 1,2-dibromo-3-chloropropane | <5 | <5 |
| 1,2-dibromoethane | <1 | <1 |
| 1,2-dichlorobenzene | <1 | <1 |
| 1,2-dichloroethane | <1 | <1 |
| 1,2-dichloropropane | <1 | <1 |
| 1,4-dichlorobenzene | <1 | <1 |
| 2-butanone (mek) | <10 | <10 |
| 2-hexanone (mbk) | <5 | <5 |
| 4-methyl-2-pentanone (mibk) | <5 | <5 |
| Acetone | <10 | <10 |
| Acrylonitrile | <5 | <5 |
| Antimony, total | <2 | <2 |
| Arsenic, total | <4 | <4 |
| Barium, total | 96.4 | 90.1 |
| Benzene | <1 | <1 |
| Beryllium, total | <4 | <4 |
| Bromochloromethane | <1 | <1 |
| Bromodichloromethane | <1 | <1 |
| Bromoform | <1 | <1 |
| Bromomethane | <1 | <1 |
| Cadmium, total | .8 | <.8 |
| Carbon disulfide | <1 | <1 |
| Carbon tetrachloride | <1 | <1 |
| Chlorobenzene | <1 | <1 |
| Chloroethane | <1 | <1 |
| Chloroform | <1 | <1 |
| Chloromethane | <1 | <1 |
| Chromium, total | <8 | <8 |
| Cis-1,2-dichloroethylene | <1 | <1 |
| Cis-1,3-dichloropropene | <1 | <1 |
| Cobalt, total | <.4 | <.4 |
| Copper, total | <4 | <4 |
| Dibromochloromethane | <1 | <1 |
| Dibromomethane | <1 | <1 |
| Ethylbenzene | <1 | <1 |
| Lead, total | <4 | <4 |
| Methyl iodide | <1 | <1 |
| Methylene chloride | <5 | <5 |
| Nickel, total | <4 | <4 |
| Selenium, total | <4 | <4 |
| Silver, total | <4 | <4 |
| Solids, total suspended | | |
| Styrene | <1 | <1 |
| Tetrachloroethylene | <1 | <1 |
| Thallium, total | <2 | <2 |
| Toluene | <1 | <1 |
| Trans-1,2-dichloroethylene | <1 | <1 |
| Trans-1,3-dichloropropene | <1 | <1 |
| Trans-1,4-dichloro-2-butene | <5 | <5 |
| Trichloroethylene | <1 | <1 |
| Trichlorofluoromethane | <1 | <1 |
| Vanadium, total | <20 | <20 |
| Vinyl acetate | <5 | <5 |
| Vinyl chloride | <1 | <1 |
| Xylenes, total | <2 | <2 |
| Zinc, total | <20.0 | <20.0 |

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

## Table 9

## Analytical Data Summary for MW-18

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 1/12/2018 |
|---|---|---|---|---|---|---|---|---|---|
| (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 | | | | | <.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 | |
| 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 | <10 | <10 | <10 | <10 | <10 | 18 | <10 |
| 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 | | | |
| 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 9

## Analytical Data Summary for MW-18

| Constituents | 3/9/2018 | 9/6/2018 | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| (3+4)-methylphenol | | | | | | | | <8 | | |
| 1,1,1,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,1-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethylene | <1 | <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 |
| 1,2,4,5-tetrachlorobenzene | | | | | | | | <8 | | |
| 1,2,4-trichlorobenzene | | | | | | | | <1 | | |
| 1,2-dibromo-3-chloropropane | <1 | <1 | <1 | <1 | <5 | <5 | <5 | <1 | <5 | <5 |
| 1,2-dibromoethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloropropane | <1 | <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 | <1 | <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 | | |
| 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 | <10 | <10 |
| 2-chloronaphthalene | | | | | | | | <8 | | |
| 2-chlorophenol | | | | | | | | <8 | | |
| 2-hexanone (mbk) | <5 | <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 | <5 |
| 4-nitroaniline | | | | | | | | <8 | | |
| 4-nitrophenol | | | | | | | | <8 | | |
| 5-nitro-o-toluidine | | | | | | | | <8 | | |
| 7,12-dimethylbenz(a)anthracene | | | | | | | | <8 | | |
| Acenaphthene | | | | | | | | <8 | | |
| Acenaphthylene | | | | | | | | <8 | | |
| Acetone | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Acetonitrile | | | | | | | | <10 | | |
| Acetophenone | | | | | | | | <8 | | |
| Acrolein | | | | | | | | <10 | | |
| Acrylonitrile | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Aldrin | | | | | | | | <.05 | | |
| Allyl chloride | | | | | | | | <1 | | |
| Alpha-bhc | | | | | | | | <.05 | | |
| Anthracene | | | | | | | | <8 | | |

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

## Table 9

## Analytical Data Summary for MW-18

| Constituents | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| (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 | <1 | <1 | <1 |
| 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 | <10 | <10 | <10 |
| Acetonitrile | | | | |
| Acetophenone | | | | |
| Acrolein | | | | |
| Acrylonitrile | <5 | <5 | <5 | <5 |
| Aldrin | | | | |
| Allyl chloride | | | | |
| Alpha-bhc | | | | |
| Anthracene | | | | |

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

## Table 9

## Analytical Data Summary for MW-18

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 1/12/2018 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 22.0 | 45.9 | 39.2 | 51.8 | 81.4 | 49.7 | 50.1 | |
| Azobenzene | ug/L | | | | | <8 | | | |
| Barium, total | ug/L | 531 | 787 | 797 | 873 | 1270 | 646 | 614 | |
| Benzene | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.6 | <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 | | | | | <8 | | | |
| 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 | |
| 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 | | | |
| Chlorobenzene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Chlorobenzilate | ug/L | | | | | <8 | | | |
| Chloroethane | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.6 | <1.0 |
| 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 | 23.9 | 47.6 | 23.2 | 22.9 | 28.4 | 8.1 | 13.4 | |
| 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 | |
| Dibromomethane | ug/L | <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 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Famphur | ug/L | | | | | <.4 | | | |
| Fluoranthene | ug/L | | | | | <8 | | | |
| Fluorene | ug/L | | | | | <8 | | | |
| Gamma-bhc (lindane) | ug/L | | | | | <.05 | | | |
| Heptachlor | ug/L | | | | | <.05 | | | |
| Heptachlor epoxide | ug/L | | | | | <.05 | | | |
| Hexachlorobenzene | ug/L | | | | | <.05 | | | |

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

## Table 9

## Analytical Data Summary for MW-18

| Constituents | 3/9/2018 | 9/6/2018 | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony, total | <2 | <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 | 46.1 | 74.4 | 87.2 | 99.4 | 81.7 | 34.8 | 9.6 | 36.0 | 34.7 | 24.1 |
| Azobenzene | | | | | | | | <8 | | |
| Barium, total | 446 | 915 | 1260 | 951 | 987 | 603 | 434 | 455 | 466 | 539 |
| Benzene | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 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 | <4 |
| Beta-bhc | | | | | | | | <.05 | | |
| Bis (2-chloroethoxy) methane | | | | | | | | <8 | | |
| Bis(2-chloroethyl) ether | | | | | | | | <8 | | |
| Bis(2-chloroisopropyl) ether | | | | | | | | <8 | | |
| Bis(2-ethylhexyl) phthalate | | | | | | | | <6 | | |
| Bromochloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromodichloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromoform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Butyl benzyl phthalate | | | | | | | | <8 | | |
| Cadmium, total | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlordane | | | | | | | | <.1 | | |
| Chlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzilate | | | | | | | | <8 | | |
| Chloroethane | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Chloroform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroprene | | | | | | | | <1 | | |
| Chromium, total | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 |
| Chrysene | | | | | | | | <8 | | |
| Cis-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cobalt, total | 3.1 | 7.5 | 16.9 | 6.8 | 10.4 | 2.0 | 6.0 | 1.3 | 1.3 | 1.2 |
| Copper, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| 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 | <1 |
| Dibromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Dichlorodifluoromethane | | | | | | | | <1 | | |
| 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 | <1 | <1 |
| Famphur | | | | | | | | <.4 | | |
| Fluoranthene | | | | | | | | <8 | | |
| Fluorene | | | | | | | | <8 | | |
| Gamma-bhc (lindane) | | | | | | | | <.05 | | |
| Heptachlor | | | | | | | | <.05 | | |
| Heptachlor epoxide | | | | | | | | <.05 | | |
| Hexachlorobenzene | | | | | | | | <.05 | | |

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

## Table 9

## Analytical Data Summary for MW-18

| Constituents | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| Antimony, total | <2 | <2 | <2 | <2 |
| Arochlor 1016 | | | | |
| Arochlor 1221 | | | | |
| Arochlor 1232 | | | | |
| Arochlor 1242 | | | | |
| Arochlor 1248 | | | | |
| Arochlor 1254 | | | | |
| Arochlor 1260 | | | | |
| Arsenic, total | 67.4 | 26.9 | 23.7 | 43.6 |
| Azobenzene | | | | |
| Barium, total | 861 | 422 | 377 | 416 |
| Benzene | <1.0 | <1.0 | <1.0 | <1.0 |
| 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 | .9 |
| Carbon disulfide | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 |
| Chlordane | | | | |
| Chlorobenzene | <1 | <1 | <1 | <1 |
| Chlorobenzilate | | | | |
| Chloroethane | <1.0 | <1.0 | <1.0 | <1.0 |
| 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 | 5.9 | .9 | .9 | 1.0 |
| Copper, total | <4 | <4 | <4 | <4 |
| 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 | | | | |
| Ethyl methacrylate | | | | |
| Ethyl methanesulfonate | | | | |
| Ethylbenzene | <1 | <1 | <1 | <1 |
| Famphur | | | | |
| Fluoranthene | | | | |
| Fluorene | | | | |
| Gamma-bhc (lindane) | | | | |
| Heptachlor | | | | |
| Heptachlor epoxide | | | | |
| Hexachlorobenzene | | | | |

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

## Table 9

## Analytical Data Summary for MW-18

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 1/12/2018 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | <4.0 | <4.0 | 4.4 | <4.0 | <4.0 | <4.0 | <4.0 | |
| 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 | | | | | <.4 | | | |
| Methylene chloride | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | |
| Naphthalene | ug/L | | | | | <8 | | | |
| Nickel, total | ug/L | 46.6 | 106.0 | 30.8 | 34.0 | 27.0 | 15.2 | 13.1 | |
| 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 | | | |
| 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 suspended | mg/L | 122 | 196 | 143 | 134 | 162 | 150 | 417 | |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| 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 | | | | | <.4 | | | |
| 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 | 16.3 | 26.9 | <8.0 | <20.0 | <8.0 | <8.0 | <8.0 | |

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

## Table 9

## Analytical Data Summary for MW-18

| Constituents | 3/9/2018 | 9/6/2018 | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | <4.0 |
| Mercury, total | | | | | | | | <.5 | | |
| Methacrylonitrile | | | | | | | | <1 | | |
| Methapyrilene | | | | | | | | <8 | | |
| Methoxychlor | | | | | | | | <.05 | | |
| Methyl iodide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <2 | <1 | <1 |
| Methyl methacrylate | | | | | | | | <1 | | |
| Methyl methanesulfonate | | | | | | | | <8 | | |
| Methyl parathion | | | | | | | | <.4 | | |
| Methylene chloride | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Naphthalene | | | | | | | | <8 | | |
| Nickel, total | 7.6 | 9.2 | 22.3 | 10.3 | 20.4 | 10.8 | 5.3 | 5.4 | 5.2 | <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 | | |
| Pronamide | | | | | | | | <8 | | |
| Propionitrile | | | | | | | | <10 | | |
| Pyrene | | | | | | | | <8 | | |
| Safrole | | | | | | | | <8 | | |
| Selenium, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Silver, total | <4 | <8 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | | | | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulfide, total | | | | | | | | <.1 | | |
| Tetrachloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | <4 | <4 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Thionazin | | | | | | | | <.4 | | |
| Tin, total | | | | | | | | <20 | | |
| Toluene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Toxaphene | | | | | | | | <.2 | | |
| Trans-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,4-dichloro-2-butene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trichlorofluoromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Vanadium, total | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| Vinyl acetate | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl chloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Xylenes, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | <8.0 | 36.3 | <8.0 | <8.0 | <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-18

| Constituents | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| 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 |
| Mercury, total | | | | |
| Methacrylonitrile | | | | |
| Methapyrilene | | | | |
| Methoxychlor | | | | |
| Methyl iodide | <1 | <1 | <1 | <1 |
| Methyl methacrylate | | | | |
| Methyl methanesulfonate | | | | |
| Methyl parathion | | | | |
| Methylene chloride | <5 | <5 | <5 | <5 |
| Naphthalene | | | | |
| Nickel, total | 16.9 | 4.5 | 6.3 | 5.4 |
| 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 | | | | |
| Phenacetin | | | | |
| Phenanthrene | | | | |
| Phenol | | | | |
| Phorate | | | | |
| Pronamide | | | | |
| Propionitrile | | | | |
| Pyrene | | | | |
| Safrole | | | | |
| Selenium, total | <4 | <4 | <4 | <4 |
| Silver, total | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | |
| Styrene | <1 | <1 | <1 | <1 |
| 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 |
| 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-19

| Constituents | Units | 9/17/2014 | 4/29/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/22/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| (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 | 1.8 | <1.0 | 1.3 | 2.2 | 1.6 | 2.2 | 1.0 | 3.1 | 3.0 |
| 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 | <1 | <1 | <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 | | | | | | <.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 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | 19.8 | <10.0 | 15.9 |
| 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 | | | |
| 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 9

## Analytical Data Summary for MW-19

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 | 3/24/2023 |
|---|---|---|---|---|---|---|---|---|---|
| (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 | <1.0 | <1.0 | <1.0 | 2.3 | 2.6 | 3.4 | 4.9 | 3.8 | 3.1 |
| 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 | <5 | <5 | <5 | <5 | <5 | <1 | <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 | <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 | |
| 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 | <10 | <5 | <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 | 107.0 | <10.0 | 11.2 | <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 | |
| Allyl chloride | | | | | | | | <1 | |
| Alpha-bhc | | | | | | | | <.05 | |
| Anthracene | | | | | | | | <8 | |

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

## Table 9

## Analytical Data Summary for MW-19

| Constituents | 9/7/2023 |
|---|---|
| (3+4)-methylphenol | |
| 1,1,1,2-tetrachloroethane | <1 |
| 1,1,1-trichloroethane | <1 |
| 1,1,2,2-tetrachloroethane | <1 |
| 1,1,2-trichloroethane | <1 |
| 1,1-dichloroethane | 2.9 |
| 1,1-dichloroethylene | <1 |
| 1,1-dichloropropene | |
| 1,2,3-trichloropropane | <1 |
| 1,2,4,5-tetrachlorobenzene | |
| 1,2,4-trichlorobenzene | |
| 1,2-dibromo-3-chloropropane | <5 |
| 1,2-dibromoethane | <1 |
| 1,2-dichlorobenzene | <1 |
| 1,2-dichloroethane | <1 |
| 1,2-dichloropropane | <1 |
| 1,2-dinitrobenzene | |
| 1,3,5-trinitrobenzene | |
| 1,3-dichlorobenzene | |
| 1,3-dichloropropane | |
| 1,3-dinitrobenzene | |
| 1,4-dichlorobenzene | <1 |
| 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 |
| 2-chloronaphthalene | |
| 2-chlorophenol | |
| 2-hexanone (mbk) | <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 |
| 4-nitroaniline | |
| 4-nitrophenol | |
| 5-nitro-o-toluidine | |
| 7,12-dimethylbenz(a)anthracene | |
| Acenaphthene | |
| Acenaphthylene | |
| Acetone | <10.0 |
| Acetonitrile | |
| Acetophenone | |
| Acrolein | |
| Acrylonitrile | <5 |
| Aldrin | |
| Allyl chloride | |
| Alpha-bhc | |
| Anthracene | |

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

## Table 9

## Analytical Data Summary for MW-19

| Constituents | Units | 9/17/2014 | 4/29/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/22/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | <4.0 | 7.6 | 6.6 | 8.3 | 13.5 | 4.1 | 12.3 | 4.6 | <4.0 |
| Azobenzene | ug/L | | | | | | <8 | | | |
| Barium, total | ug/L | 182 | 215 | 135 | 172 | 170 | 167 | 286 | 180 | 185 |
| Benzene | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <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 | <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 | | | | | | <8 | | | |
| 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 |
| 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 | | | |
| Chlorobenzene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzilate | ug/L | | | | | | <8 | | | |
| Chloroethane | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Chloroform | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloromethane | ug/L | <1.0 | <1.0 | <1.0 | 3.6 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Chloroprene | ug/L | | | | | | <1 | | | |
| Chromium, total | ug/L | <8.0 | 8.3 | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 |
| Chrysene | ug/L | | | | | | <8 | | | |
| Cis-1,2-dichloroethylene | ug/L | <1.0 | <1.0 | <1.0 | 1.3 | 1.1 | 1.5 | <1.0 | 1.9 | 2.6 |
| Cis-1,3-dichloropropene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cobalt, total | ug/L | 1.4 | 5.9 | 1.8 | 1.7 | 2.8 | 1.6 | 12.0 | 1.4 | 1.0 |
| Copper, total | ug/L | <4.0 | 9.9 | <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 | <1 | | | | | 1 | | <1 | <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 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Famphur | ug/L | | | | | | <.4 | | | |
| Fluoranthene | ug/L | | | | | | <8 | | | |
| Fluorene | ug/L | | | | | | <8 | | | |
| Gamma-bhc (lindane) | ug/L | | | | | | <.05 | | | |
| Heptachlor | ug/L | | | | | | <.05 | | | |
| Heptachlor epoxide | ug/L | | | | | | <.05 | | | |
| Hexachlorobenzene | ug/L | | | | | | <.05 | | | |

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

## Table 9

## Analytical Data Summary for MW-19

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 | 3/24/2023 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | <4.0 | <4.0 | 6.2 | 4.1 | 9.9 | <4.0 | <4.0 | <4.0 | 4.9 |
| Azobenzene | | | | | | | | <8 | |
| Barium, total | 173 | 175 | 224 | 195 | 228 | 223 | 248 | 255 | 261 |
| Benzene | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.2 | 1.0 | <1.0 |
| 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 | |
| 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 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlordane | | | | | | | | <.1 | |
| Chlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzilate | | | | | | | | <8 | |
| Chloroethane | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.4 | 1.2 | <1.0 |
| Chloroform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloromethane | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Chloroprene | | | | | | | | <1 | |
| Chromium, total | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 | <8.0 |
| Chrysene | | | | | | | | <8 | |
| Cis-1,2-dichloroethylene | <1.0 | <1.0 | <1.0 | 1.7 | 2.1 | 2.6 | 4.7 | 3.5 | 2.2 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cobalt, total | .9 | 1.5 | 3.1 | 2.0 | 4.9 | 1.1 | 1.9 | 1.5 | 1.2 |
| Copper, total | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | 4.8 | 5.4 |
| 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 | |
| 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 | <1 |
| Famphur | | | | | | | | <.4 | |
| Fluoranthene | | | | | | | | <8 | |
| Fluorene | | | | | | | | <8 | |
| Gamma-bhc (lindane) | | | | | | | | <.05 | |
| Heptachlor | | | | | | | | <.05 | |
| Heptachlor epoxide | | | | | | | | <.05 | |
| Hexachlorobenzene | | | | | | | | <.05 | |

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

## Table 9

## Analytical Data Summary for MW-19

| Constituents | 9/7/2023 |
|---|---|
| Antimony, total | <2 |
| Arochlor 1016 | |
| Arochlor 1221 | |
| Arochlor 1232 | |
| Arochlor 1242 | |
| Arochlor 1248 | |
| Arochlor 1254 | |
| Arochlor 1260 | |
| Arsenic, total | <4.0 |
| Azobenzene | |
| Barium, total | 231 |
| Benzene | <1.0 |
| Benzo(a)anthracene | |
| Benzo(a)pyrene | |
| Benzo(b)fluoranthene | |
| Benzo(g,h,i)perylene | |
| Benzo(k)fluoranthene | |
| Benzyl alcohol | |
| Beryllium, total | <4 |
| Beta-bhc | |
| Bis (2-chloroethoxy) methane | |
| Bis(2-chloroethyl) ether | |
| Bis(2-chloroisopropyl) ether | |
| Bis(2-ethylhexyl) phthalate | |
| Bromochloromethane | <1 |
| Bromodichloromethane | <1 |
| Bromoform | <1 |
| Bromomethane | <1 |
| Butyl benzyl phthalate | |
| Cadmium, total | <.8 |
| Carbon disulfide | <1 |
| Carbon tetrachloride | <1 |
| Chlordane | |
| Chlorobenzene | <1 |
| Chlorobenzilate | |
| Chloroethane | <1.0 |
| Chloroform | <1 |
| Chloromethane | <1.0 |
| Chloroprene | |
| Chromium, total | <8.0 |
| Chrysene | |
| Cis-1,2-dichloroethylene | 1.1 |
| Cis-1,3-dichloropropene | <1 |
| Cobalt, total | 1.1 |
| Copper, total | <4.0 |
| Cyanide, total | |
| Delta-bhc | |
| Diallate | |
| Dibenzo(a,h)anthracene | |
| Dibenzofuran | |
| Dibromochloromethane | <1 |
| Dibromomethane | <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 | |
| Ethyl methacrylate | |
| Ethyl methanesulfonate | |
| Ethylbenzene | <1 |
| Famphur | |
| Fluoranthene | |
| Fluorene | |
| Gamma-bhc (lindane) | |
| Heptachlor | |
| Heptachlor epoxide | |
| Hexachlorobenzene | |

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

## Table 9

## Analytical Data Summary for MW-19

| Constituents | Units | 9/17/2014 | 4/29/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/22/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | <4.0 | 5.4 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| 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 | <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 | 7.9 | 20.0 | 8.7 | 8.9 | 8.1 | 8.8 | 47.8 | 8.2 | 6.2 |
| 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 | | | |
| 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 | <4 | <4 |
| Silver, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <8 |
| Solids, total suspended | mg/L | 74 | 429 | 21 | 17 | 46 | 70 | 570 | | |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 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 | <20.0 | 20.9 | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 |
| Vinyl acetate | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl chloride | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 3.2 |
| Xylenes, total | ug/L | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | ug/L | 11.1 | 37.7 | <8.0 | <20.0 | <8.0 | <8.0 | 9.0 | <8.0 | 10.4 |

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

## Table 9

## Analytical Data Summary for MW-19

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 | 3/24/2023 |
|---|---|---|---|---|---|---|---|---|---|
| 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 |
| Mercury, total | | | | | | | | <.5 | |
| Methacrylonitrile | | | | | | | | <1 | |
| Methapyrilene | | | | | | | | <8 | |
| Methoxychlor | | | | | | | | <.05 | |
| Methyl iodide | <1 | <1 | <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 | <5 | <5 |
| Naphthalene | | | | | | | | <8 | |
| Nickel, total | 5.6 | 6.3 | 9.7 | 7.8 | 27.3 | 5.8 | 8.3 | 9.1 | 6.5 |
| 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 | |
| Pronamide | | | | | | | | <8 | |
| Propionitrile | | | | | | | | <10 | |
| Pyrene | | | | | | | | <8 | |
| Safrole | | | | | | | | <8 | |
| Selenium, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Silver, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | | | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulfide, total | | | | | | | | .3 | |
| Tetrachloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | <2 | <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 | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 |
| Vinyl acetate | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl chloride | <1.0 | <1.0 | <1.0 | 1.4 | 1.2 | 1.9 | 1.9 | 2.1 | 1.0 |
| Xylenes, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | <8.0 | <8.0 | <20.0 | <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-19

| Constituents | 9/7/2023 |
|---|---|
| Hexachlorobutadiene | |
| Hexachlorocyclopentadiene | |
| Hexachloroethane | |
| Hexachloropropene | |
| Indeno(1,2,3-cd)pyrene | |
| Isobutanol | |
| Isodrin | |
| Isophorone | |
| Isosafrole | |
| Kepone | |
| Lead, total | <4.0 |
| Mercury, total | |
| Methacrylonitrile | |
| Methapyrilene | |
| Methoxychlor | |
| Methyl iodide | <1 |
| Methyl methacrylate | |
| Methyl methanesulfonate | |
| Methyl parathion | |
| Methylene chloride | <5 |
| Naphthalene | |
| Nickel, total | 6.2 |
| 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 | |
| Phenacetin | |
| Phenanthrene | |
| Phenol | |
| Phorate | |
| Pronamide | |
| Propionitrile | |
| Pyrene | |
| Safrole | |
| Selenium, total | <4 |
| Silver, total | <4 |
| Solids, total suspended | |
| Styrene | <1 |
| Sulfide, total | |
| Tetrachloroethylene | <1 |
| Thallium, total | <2 |
| Thionazin | |
| Tin, total | |
| Toluene | <1 |
| Toxaphene | |
| Trans-1,2-dichloroethylene | <1 |
| Trans-1,3-dichloropropene | <1 |
| Trans-1,4-dichloro-2-butene | <5 |
| Trichloroethylene | <1 |
| Trichlorofluoromethane | <1 |
| Vanadium, total | <20.0 |
| Vinyl acetate | <5 |
| Vinyl chloride | 1.2 |
| Xylenes, total | <2 |
| Zinc, total | <20.0 |

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

## Table 9

### Analytical Data Summary for MW-1D

| Constituents | Units | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| (3+4)-methylphenol | ug/L | <8 | | |
| 1,1,1,2-tetrachloroethane | ug/L | <1 | <1 | <1 |
| 1,1,1-trichloroethane | ug/L | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | ug/L | <1 | <1 | <1 |
| 1,1,2-trichloroethane | ug/L | <1 | <1 | <1 |
| 1,1-dichloroethane | ug/L | <1 | <1 | <1 |
| 1,1-dichloroethylene | ug/L | <1 | <1 | <1 |
| 1,1-dichloropropene | ug/L | <1 | | |
| 1,2,3-trichloropropane | ug/L | <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 | <5 | <5 |
| 1,2-dibromoethane | ug/L | <1 | <1 | <1 |
| 1,2-dichlorobenzene | ug/L | <1 | <1 | <1 |
| 1,2-dichloroethane | ug/L | <1 | <1 | <1 |
| 1,2-dichloropropane | ug/L | <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 |
| 1,4-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 | <10 | <10 |
| 2-chloronaphthalene | ug/L | <8 | | |
| 2-chlorophenol | ug/L | <8 | | |
| 2-hexanone (mbk) | ug/L | <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 |
| 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 |
| Acetonitrile | ug/L | <10 | | |
| Acetophenone | ug/L | <8 | | |
| Acrolein | ug/L | <10 | | |
| Acrylonitrile | ug/L | <5 | <5 | <5 |
| Aldrin | ug/L | <.05 | | |
| 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 9

### Analytical Data Summary for MW-1D

| Constituents | Units | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| Antimony, total | ug/L | <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 | <4 | <4 | <4 |
| Azobenzene | ug/L | <8 | | |
| Barium, total | ug/L | 660 | 784 | 637 |
| Benzene | ug/L | 1.1 | 1.3 | <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 |
| 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 | <6 | | |
| Bromochloromethane | ug/L | <1 | <1 | <1 |
| Bromodichloromethane | ug/L | <1 | <1 | <1 |
| Bromoform | ug/L | <1 | <1 | <1 |
| Bromomethane | ug/L | <1 | <1 | <1 |
| Butyl benzyl phthalate | ug/L | <8 | | |
| Cadmium, total | ug/L | <.8 | <.8 | <.8 |
| Carbon disulfide | ug/L | <1 | <1 | <1 |
| Carbon tetrachloride | ug/L | <1 | <1 | <1 |
| Chlordane | ug/L | <.1 | | |
| Chlorobenzene | ug/L | 1.0 | 1.5 | <1.0 |
| Chlorobenzilate | ug/L | <8 | | |
| Chloroethane | ug/L | <1.0 | 1.1 | <1.0 |
| Chloroform | ug/L | <1 | <1 | <1 |
| Chloromethane | ug/L | <1 | <1 | <1 |
| Chloroprene | ug/L | <1 | | |
| Chromium, total | ug/L | <8 | <8 | <8 |
| Chrysene | ug/L | <8 | | |
| Cis-1,2-dichloroethylene | ug/L | <1 | <1 | <1 |
| Cis-1,3-dichloropropene | ug/L | <1 | <1 | <1 |
| Cobalt, total | ug/L | 11.9 | 14.0 | 2.4 |
| Copper, total | ug/L | <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 |
| Dibromomethane | ug/L | <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 | <1 | <1 | <1 |
| Famphur | ug/L | <.4 | | |
| Fluoranthene | ug/L | <8 | | |
| Fluorene | ug/L | <8 | | |
| Gamma-bhc (lindane) | ug/L | <.05 | | |
| Heptachlor | ug/L | <.05 | | |
| Heptachlor epoxide | ug/L | <.05 | | |
| Hexachlorobenzene | ug/L | <.05 | | |

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

## Table 9

### Analytical Data Summary for MW-1D

| Constituents | Units | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| 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 |
| Mercury, total | ug/L | <.5 | | |
| Methacrylonitrile | ug/L | <1 | | |
| Methapyrilene | ug/L | <8 | | |
| Methoxychlor | ug/L | <.05 | | |
| Methyl iodide | ug/L | <2 | <1 | <1 |
| Methyl methacrylate | ug/L | <1 | | |
| Methyl methanesulfonate | ug/L | <8 | | |
| Methyl parathion | ug/L | <.4 | | |
| Methylene chloride | ug/L | <5 | <5 | <5 |
| Naphthalene | ug/L | <8 | | |
| Nickel, total | ug/L | 29.3 | 19.0 | 11.3 |
| 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 | | |
| 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 |
| Silver, total | ug/L | <4 | <4 | <4 |
| Styrene | ug/L | <1 | <1 | <1 |
| Sulfide, total | mg/L | .15 | | |
| Tetrachloroethylene | ug/L | <1 | <1 | <1 |
| Thallium, total | ug/L | <2 | <2 | <2 |
| Thionazin | ug/L | <.4 | | |
| Tin, total | ug/L | <20 | | |
| Toluene | ug/L | <1 | <1 | <1 |
| Toxaphene | ug/L | <.2 | | |
| Trans-1,2-dichloroethylene | ug/L | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | ug/L | <1 | <1 | <1 |
| Trans-1,4-dichloro-2-butene | ug/L | <5 | <5 | <5 |
| Trichloroethylene | ug/L | <1 | <1 | <1 |
| Trichlorofluoromethane | ug/L | <1 | <1 | <1 |
| Vanadium, total | ug/L | <20 | <20 | <20 |
| Vinyl acetate | ug/L | <5 | <5 | <5 |
| Vinyl chloride | ug/L | <1 | <1 | <1 |
| Xylenes, total | ug/L | <2 | <2 | <2 |
| Zinc, total | ug/L | <20 | <20 | <20 |

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

## Table 9

## Analytical Data Summary for MW-20

| Constituents | Units | 9/18/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| (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 | <1 | <1 | <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 | | | | | <.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 | <10.0 | <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 | <5 | <5 |
| Aldrin | ug/L | | | | | <.05 | | | | |
| 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 9

## Analytical Data Summary for MW-20

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 | 3/24/2023 |
|---|---|---|---|---|---|---|---|---|---|
| (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 | <5 | <5 | <5 | <1 | <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 | <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 | | | |
| 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 | <10 | <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 | 57.2 | <10.0 | <10.0 |
| Acetonitrile | | | | | | <10 | | | |
| Acetophenone | | | | | | <8 | | | |
| Acrolein | | | | | | <10 | | | |
| Acrylonitrile | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Aldrin | | | | | | <.05 | | | |
| Allyl chloride | | | | | | <1 | | | |
| Alpha-bhc | | | | | | <.05 | | | |
| Anthracene | | | | | | <8 | | | |

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

## Table 9

## Analytical Data Summary for MW-20

| Constituents | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|
| (3+4)-methylphenol | | | |
| 1,1,1,2-tetrachloroethane | <1 | <1 | <1 |
| 1,1,1-trichloroethane | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | <1 | <1 | <1 |
| 1,1,2-trichloroethane | <1 | <1 | <1 |
| 1,1-dichloroethane | <1 | <1 | <1 |
| 1,1-dichloroethylene | <1 | <1 | <1 |
| 1,1-dichloropropene | | | |
| 1,2,3-trichloropropane | <1 | <1 | <1 |
| 1,2,4,5-tetrachlorobenzene | | | |
| 1,2,4-trichlorobenzene | | | |
| 1,2-dibromo-3-chloropropane | <5 | <5 | <5 |
| 1,2-dibromoethane | <1 | <1 | <1 |
| 1,2-dichlorobenzene | <1 | <1 | <1 |
| 1,2-dichloroethane | <1 | <1 | <1 |
| 1,2-dichloropropane | <1 | <1 | <1 |
| 1,2-dinitrobenzene | | | |
| 1,3,5-trinitrobenzene | | | |
| 1,3-dichlorobenzene | | | |
| 1,3-dichloropropane | | | |
| 1,3-dinitrobenzene | | | |
| 1,4-dichlorobenzene | <1 | <1 | <1 |
| 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 |
| 2-chloronaphthalene | | | |
| 2-chlorophenol | | | |
| 2-hexanone (mbk) | <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 |
| 4-nitroaniline | | | |
| 4-nitrophenol | | | |
| 5-nitro-o-toluidine | | | |
| 7,12-dimethylbenz(a)anthracene | | | |
| Acenaphthene | | | |
| Acenaphthylene | | | |
| Acetone | <10.0 | <10.0 | <10.0 |
| Acetonitrile | | | |
| Acetophenone | | | |
| Acrolein | | | |
| Acrylonitrile | <5 | <5 | <5 |
| Aldrin | | | |
| Allyl chloride | | | |
| Alpha-bhc | | | |
| Anthracene | | | |

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

## Table 9

## Analytical Data Summary for MW-20

| Constituents | Units | 9/18/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 75.2 | 45.5 | 81.7 | 81.5 | 77.1 | 79.1 | 96.8 | 83.4 | 99.6 |
| Azobenzene | ug/L | | | | | <8 | | | | |
| Barium, total | ug/L | 2370 | 2390 | 2490 | 2260 | 2140 | 2140 | 2340 | 2010 | 2360 |
| Benzene | ug/L | 1.9 | 1.9 | 2.0 | 1.5 | 1.8 | 2.6 | 2.0 | 2.9 | 3.6 |
| 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 | | | | | <8 | | | | |
| 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 |
| 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 | | | | |
| Chlorobenzene | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.2 |
| Chlorobenzilate | ug/L | | | | | <8 | | | | |
| Chloroethane | ug/L | 2.1 | 2.9 | 2.3 | 1.6 | <1.0 | 2.4 | 2.3 | 2.0 | 2.8 |
| 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 | <8 | <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 | 21.0 | 15.4 | 16.7 | 14.4 | 12.3 | 13.4 | 14.5 | 12.2 | 12.8 |
| Copper, total | ug/L | <4 | <4 | <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 | <1 |
| Dibromomethane | ug/L | <1 | <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 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Famphur | ug/L | | | | | <.4 | | | | |
| Fluoranthene | ug/L | | | | | <8 | | | | |
| Fluorene | ug/L | | | | | <8 | | | | |
| Gamma-bhc (lindane) | ug/L | | | | | <.05 | | | | |
| Heptachlor | ug/L | | | | | <.05 | | | | |
| Heptachlor epoxide | ug/L | | | | | <.05 | | | | |
| Hexachlorobenzene | ug/L | | | | | <.05 | | | | |

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

## Table 9

## Analytical Data Summary for MW-20

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 | 3/24/2023 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 78.4 | 83.6 | 65.2 | 87.1 | 106.0 | 87.8 | 127.0 | 133.0 | 94.6 |
| Azobenzene | | | | | | <8 | | | |
| Barium, total | 2100 | 2350 | 2300 | 1970 | 1970 | 2160 | 1890 | 2020 | 2000 |
| Benzene | 2.5 | 3.1 | 2.8 | <1.0 | 3.3 | 3.0 | 3.8 | 2.6 | 2.6 |
| 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 | | | | | | 8 | 7 | <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 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlordane | | | | | | <.1 | | | |
| Chlorobenzene | <1.0 | <1.0 | 1.0 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | <1.0 |
| Chlorobenzilate | | | | | | <8 | | | |
| Chloroethane | 1.6 | 2.0 | 1.6 | 1.6 | 1.6 | 1.8 | 1.6 | 1.7 | <1.0 |
| 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 | 12.3 | 10.7 | 10.1 | 9.9 | 12.0 | 10.6 | 10.4 | 11.1 | 11.1 |
| Copper, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| 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 | | | |
| 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 | <1 |
| Famphur | | | | | | <.4 | | | |
| Fluoranthene | | | | | | <8 | | | |
| Fluorene | | | | | | <8 | | | |
| Gamma-bhc (lindane) | | | | | | <.05 | | | |
| Heptachlor | | | | | | <.05 | | | |
| Heptachlor epoxide | | | | | | <.05 | | | |
| Hexachlorobenzene | | | | | | <.05 | | | |

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

## Table 9

## Analytical Data Summary for MW-20

| Constituents | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|
| Antimony, total | <2 | <2 | <2 |
| Arochlor 1016 | | | |
| Arochlor 1221 | | | |
| Arochlor 1232 | | | |
| Arochlor 1242 | | | |
| Arochlor 1248 | | | |
| Arochlor 1254 | | | |
| Arochlor 1260 | | | |
| Arsenic, total | 83.4 | 112.0 | 44.1 |
| Azobenzene | | | |
| Barium, total | 1810 | 2110 | 1950 |
| Benzene | 2.0 | 2.2 | 2.1 |
| Benzo(a)anthracene | | | |
| Benzo(a)pyrene | | | |
| Benzo(b)fluoranthene | | | |
| Benzo(g,h,i)perylene | | | |
| Benzo(k)fluoranthene | | | |
| Benzyl alcohol | | | |
| Beryllium, total | <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 |
| Bromodichloromethane | <1 | <1 | <1 |
| Bromoform | <1 | <1 | <1 |
| Bromomethane | <1 | <1 | <1 |
| Butyl benzyl phthalate | | | |
| Cadmium, total | <.8 | <.8 | <.8 |
| Carbon disulfide | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 |
| Chlordane | | | |
| Chlorobenzene | 1.0 | 1.2 | 1.9 |
| Chlorobenzilate | | | |
| Chloroethane | 1.5 | 1.2 | <1.0 |
| Chloroform | <1 | <1 | <1 |
| Chloromethane | <1 | <1 | <1 |
| Chloroprene | | | |
| Chromium, total | <8 | <8 | <8 |
| Chrysene | | | |
| Cis-1,2-dichloroethylene | <1 | <1 | <1 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 |
| Cobalt, total | 9.1 | 9.7 | 6.4 |
| Copper, total | <4 | <4 | <4 |
| Cyanide, total | | | |
| Delta-bhc | | | |
| Diallate | | | |
| Dibenzo(a,h)anthracene | | | |
| Dibenzofuran | | | |
| Dibromochloromethane | <1 | <1 | <1 |
| Dibromomethane | <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 | | | |
| Ethyl methacrylate | | | |
| Ethyl methanesulfonate | | | |
| Ethylbenzene | <1 | <1 | <1 |
| Famphur | | | |
| Fluoranthene | | | |
| Fluorene | | | |
| Gamma-bhc (lindane) | | | |
| Heptachlor | | | |
| Heptachlor epoxide | | | |
| Hexachlorobenzene | | | |

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

## Table 9

## Analytical Data Summary for MW-20

| Constituents | Units | 9/18/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | <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 | <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 | 42.2 | 28.4 | 41.6 | 36.5 | 34.2 | 37.6 | 42.7 | 37.0 | 39.0 |
| 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 | | | | | <.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 | | | | |
| 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 | <4 | <4 |
| Silver, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <8 |
| Solids, total suspended | mg/L | 375 | 177 | 156 | 165 | 108 | 1270 | 1200 | | |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulfide, total | mg/L | | | | | <.10 | | | | |
| 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 |
| Xylenes, total | ug/L | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | ug/L | 10.3 | <20.0 | 8.0 | <20.0 | <8.0 | <8.0 | <8.0 | 8.2 | 84.5 |

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

## Table 9

## Analytical Data Summary for MW-20

| Constituents | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 | 3/24/2023 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | <4 |
| Mercury, total | | | | | | <.5 | | | |
| Methacrylonitrile | | | | | | <1 | | | |
| Methapyrilene | | | | | | <8 | | | |
| Methoxychlor | | | | | | <.05 | | | |
| Methyl iodide | <1 | <1 | <1 | <1 | <1 | <2 | <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 | 37.5 | 33.2 | 30.9 | 33.4 | 35.0 | 35.0 | 34.5 | 38.2 | 31.9 |
| 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 | | | |
| Pronamide | | | | | | <8 | | | |
| Propionitrile | | | | | | <10 | | | |
| Pyrene | | | | | | <8 | | | |
| Safrole | | | | | | <8 | | | |
| Selenium, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Silver, total | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | | | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulfide, total | | | | | | .14 | | | |
| Tetrachloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | <2 | <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 |
| Xylenes, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | <8.0 | 33.8 | <20.0 | <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-20

| Constituents | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|
| Hexachlorobutadiene | | | |
| Hexachlorocyclopentadiene | | | |
| Hexachloroethane | | | |
| Hexachloropropene | | | |
| Indeno(1,2,3-cd)pyrene | | | |
| Isobutanol | | | |
| Isodrin | | | |
| Isophorone | | | |
| Isosafrole | | | |
| Kepone | | | |
| Lead, total | <4 | <4 | <4 |
| Mercury, total | | | |
| Methacrylonitrile | | | |
| Methapyrilene | | | |
| Methoxychlor | | | |
| Methyl iodide | <1 | <1 | <1 |
| Methyl methacrylate | | | |
| Methyl methanesulfonate | | | |
| Methyl parathion | | | |
| Methylene chloride | <5 | <5 | <5 |
| Naphthalene | | | |
| Nickel, total | 33.7 | 31.4 | 18.0 |
| 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 | | | |
| Phenacetin | | | |
| Phenanthrene | | | |
| Phenol | | | |
| Phorate | | | |
| Pronamide | | | |
| Propionitrile | | | |
| Pyrene | | | |
| Safrole | | | |
| Selenium, total | <4 | <4 | <4 |
| Silver, total | <4 | <4 | <4 |
| Solids, total suspended | | | |
| Styrene | <1 | <1 | <1 |
| Sulfide, total | | | |
| Tetrachloroethylene | <1 | <1 | <1 |
| Thallium, total | <2 | <2 | <2 |
| Thionazin | | | |
| Tin, total | | | |
| Toluene | <1 | <1 | <1 |
| Toxaphene | | | |
| Trans-1,2-dichloroethylene | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | <1 | <1 | <1 |
| Trans-1,4-dichloro-2-butene | <5 | <5 | <5 |
| Trichloroethylene | <1 | <1 | <1 |
| Trichlorofluoromethane | <1 | <1 | <1 |
| Vanadium, total | <20 | <20 | <20 |
| Vinyl acetate | <5 | <5 | <5 |
| Vinyl chloride | <1 | <1 | <1 |
| Xylenes, total | <2 | <2 | <2 |
| Zinc, total | <20.0 | <20.0 | <20.0 |

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

## Table 9

## Analytical Data Summary for MW-3

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 1/12/2018 |
|---|---|---|---|---|---|---|---|---|---|
| (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 | 1.3 | <1.0 | <1.0 | <1.0 | 1.5 | <1.0 | <1.0 | |
| 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 | | | | | <.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 | |
| 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 | 15.4 | |
| 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 | | | |
| 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 9

## Analytical Data Summary for MW-3

| Constituents | 3/9/2018 | 9/6/2018 | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| (3+4)-methylphenol | | | | | | | | <8 | | |
| 1,1,1,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,1-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethane | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 1,1-dichloroethylene | <1 | <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 |
| 1,2,4,5-tetrachlorobenzene | | | | | | | | <8 | | |
| 1,2,4-trichlorobenzene | | | | | | | | <1 | | |
| 1,2-dibromo-3-chloropropane | <1 | <1 | <1 | <1 | <5 | <5 | <5 | <1 | <5 | <5 |
| 1,2-dibromoethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloropropane | <1 | <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 | <1 | <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 | | |
| 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 | <10 | <10 |
| 2-chloronaphthalene | | | | | | | | <8 | | |
| 2-chlorophenol | | | | | | | | <8 | | |
| 2-hexanone (mbk) | <5 | <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 | <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 | <10.0 |
| Acetonitrile | | | | | | | | <10 | | |
| Acetophenone | | | | | | | | <8 | | |
| Acrolein | | | | | | | | <10 | | |
| Acrylonitrile | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Aldrin | | | | | | | | <.05 | | |
| Allyl chloride | | | | | | | | <1 | | |
| Alpha-bhc | | | | | | | | <.05 | | |
| Anthracene | | | | | | | | <8 | | |

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

## Table 9

## Analytical Data Summary for MW-3

| Constituents | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| (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 | <1.0 | <1.0 | <1.0 | <1.0 |
| 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 | <1 | <1 | <1 |
| 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 | | | | |
| Allyl chloride | | | | |
| Alpha-bhc | | | | |
| Anthracene | | | | |

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

## Table 9

## Analytical Data Summary for MW-3

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 1/12/2018 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 727 | 624 | 437 | 318 | 376 | 284 | 288 | |
| 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 | | | | | <8 | | | |
| 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 | |
| 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 | | | |
| 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 | 2.0 | <1.0 | <1.0 | <1.0 | 2.3 | <1.0 | <1.0 | |
| Cis-1,3-dichloropropene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Cobalt, total | ug/L | 2.3 | 1.9 | <.8 | <.8 | <.8 | <.8 | <.8 | |
| Copper, total | ug/L | <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 | |
| Dibromomethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Dichlorodifluoromethane | ug/L | <1 | | | | <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 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| Famphur | ug/L | | | | | <.4 | | | |
| Fluoranthene | ug/L | | | | | <8 | | | |
| Fluorene | ug/L | | | | | <8 | | | |
| Gamma-bhc (lindane) | ug/L | | | | | <.05 | | | |
| Heptachlor | ug/L | | | | | <.05 | | | |
| Heptachlor epoxide | ug/L | | | | | <.05 | | | |
| Hexachlorobenzene | ug/L | | | | | <.05 | | | |

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

## Table 9

## Analytical Data Summary for MW-3

| Constituents | 3/9/2018 | 9/6/2018 | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony, total | <2 | <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 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Azobenzene | | | | | | | | <8 | | |
| Barium, total | 337 | 337 | 619 | 375 | 343 | 358 | 318 | 352 | 363 | 388 |
| Benzene | <1 | <1 | <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 | <4 | <4 |
| Beta-bhc | | | | | | | | <.05 | | |
| Bis (2-chloroethoxy) methane | | | | | | | | <8 | | |
| Bis(2-chloroethyl) ether | | | | | | | | <8 | | |
| Bis(2-chloroisopropyl) ether | | | | | | | | <8 | | |
| Bis(2-ethylhexyl) phthalate | | | | | | | | 8 | <6 | |
| Bromochloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromodichloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromoform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Butyl benzyl phthalate | | | | | | | | <8 | | |
| Cadmium, total | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlordane | | | | | | | | <.1 | | |
| Chlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzilate | | | | | | | | <8 | | |
| Chloroethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroform | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroprene | | | | | | | | <1 | | |
| Chromium, total | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 |
| Chrysene | | | | | | | | <8 | | |
| Cis-1,2-dichloroethylene | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cobalt, total | <.8 | <.8 | <.8 | <.8 | <.8 | <.4 | <.4 | <.4 | <.4 | <.4 |
| Copper, total | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | 4.4 | <4.0 | <4.0 | 12.0 | <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 | <1 |
| Dibromomethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Dichlorodifluoromethane | | | | | | | | <1 | | |
| 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 | <1 | <1 |
| Famphur | | | | | | | | <.4 | | |
| Fluoranthene | | | | | | | | <8 | | |
| Fluorene | | | | | | | | <8 | | |
| Gamma-bhc (lindane) | | | | | | | | <.05 | | |
| Heptachlor | | | | | | | | <.05 | | |
| Heptachlor epoxide | | | | | | | | <.05 | | |
| Hexachlorobenzene | | | | | | | | <.05 | | |

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

## Table 9

## Analytical Data Summary for MW-3

| Constituents | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| Antimony, total | <2 | <2 | <2 | <2 |
| Arochlor 1016 | | | | |
| Arochlor 1221 | | | | |
| Arochlor 1232 | | | | |
| Arochlor 1242 | | | | |
| Arochlor 1248 | | | | |
| Arochlor 1254 | | | | |
| Arochlor 1260 | | | | |
| Arsenic, total | <4 | <4 | <4 | <4 |
| Azobenzene | | | | |
| Barium, total | 351 | 271 | 360 | 295 |
| Benzene | <1 | <1 | <1 | <1 |
| 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 |
| Carbon disulfide | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 |
| Chlordane | | | | |
| Chlorobenzene | <1 | <1 | <1 | <1 |
| Chlorobenzilate | | | | |
| Chloroethane | <1 | <1 | <1 | <1 |
| Chloroform | <1 | <1 | <1 | <1 |
| Chloromethane | <1 | <1 | <1 | <1 |
| Chloroprene | | | | |
| Chromium, total | <8 | <8 | <8 | <8 |
| Chrysene | | | | |
| Cis-1,2-dichloroethylene | <1.0 | <1.0 | <1.0 | <1.0 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 | <1 |
| Cobalt, total | <.4 | <.4 | <.4 | <.4 |
| 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 | | | | |
| Ethyl methacrylate | | | | |
| Ethyl methanesulfonate | | | | |
| Ethylbenzene | <1 | <1 | <1 | <1 |
| Famphur | | | | |
| Fluoranthene | | | | |
| Fluorene | | | | |
| Gamma-bhc (lindane) | | | | |
| Heptachlor | | | | |
| Heptachlor epoxide | | | | |
| Hexachlorobenzene | | | | |

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

## Table 9

## Analytical Data Summary for MW-3

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/21/2017 | 10/13/2017 | 1/12/2018 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | |
| 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 | |
| Naphthalene | ug/L | | | | | <8 | | | |
| Nickel, total | ug/L | 7.5 | 5.9 | <4.0 | <4.0 | <4.0 | <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 | | | | | <.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 | | | |
| 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 | <4.0 | 5.8 | <4.0 | 4.6 | 4.2 | 4.0 | 4.2 | 6.1 |
| Silver, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | |
| Solids, total suspended | mg/L | 108 | 34 | 46 | 43 | 4 | 781 | 334 | |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | |
| 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 | | | | | <.4 | | | |
| 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 | 13.2 | 11.7 | 8.8 | <20.0 | <8.0 | <8.0 | <8.0 | |

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

## Table 9

## Analytical Data Summary for MW-3

| Constituents | 3/9/2018 | 9/6/2018 | 3/7/2019 | 9/26/2019 | 4/2/2020 | 9/17/2020 | 3/25/2021 | 9/16/2021 | 3/16/2022 | 9/1/2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | <4 | <4 |
| Mercury, total | | | | | | | | <.5 | | |
| Methacrylonitrile | | | | | | | | <1 | | |
| Methapyrilene | | | | | | | | <8 | | |
| Methoxychlor | | | | | | | | <.05 | | |
| Methyl iodide | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <2 | <1 | <1 |
| Methyl methacrylate | | | | | | | | <1 | | |
| Methyl methanesulfonate | | | | | | | | <8 | | |
| Methyl parathion | | | | | | | | <.4 | | |
| Methylene chloride | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Naphthalene | | | | | | | | <8 | | |
| Nickel, total | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <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 | | |
| Pronamide | | | | | | | | <8 | | |
| Propionitrile | | | | | | | | <10 | | |
| Pyrene | | | | | | | | <8 | | |
| Safrole | | | | | | | | <8 | | |
| Selenium, total | 4.5 | 4.2 | 7.5 | 9.8 | <4.0 | 5.0 | <4.0 | <4.0 | <4.0 | 5.0 |
| Silver, total | <4 | <8 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | | | | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulfide, total | | | | | | | | <.1 | | |
| Tetrachloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | <4 | <4 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Thionazin | | | | | | | | <.4 | | |
| Tin, total | | | | | | | | <20 | | |
| Toluene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Toxaphene | | | | | | | | <.2 | | |
| Trans-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,4-dichloro-2-butene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trichlorofluoromethane | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Vanadium, total | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| Vinyl acetate | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl chloride | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Xylenes, total | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | <8.0 | 14.7 | <8.0 | <20.0 | <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-3

| Constituents | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|
| Hexachlorobutadiene | | | | |
| Hexachlorocyclopentadiene | | | | |
| Hexachloroethane | | | | |
| Hexachloropropene | | | | |
| Indeno(1,2,3-cd)pyrene | | | | |
| Isobutanol | | | | |
| Isodrin | | | | |
| Isophorone | | | | |
| Isosafrole | | | | |
| Kepone | | | | |
| Lead, total | <4 | <4 | <4 | <4 |
| Mercury, total | | | | |
| Methacrylonitrile | | | | |
| Methapyrilene | | | | |
| Methoxychlor | | | | |
| Methyl iodide | <1 | <1 | <1 | <1 |
| Methyl methacrylate | | | | |
| Methyl methanesulfonate | | | | |
| Methyl parathion | | | | |
| Methylene chloride | <5 | <5 | <5 | <5 |
| Naphthalene | | | | |
| Nickel, total | <4.0 | <4.0 | <4.0 | <4.0 |
| 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 | | | | |
| Phenacetin | | | | |
| Phenanthrene | | | | |
| Phenol | | | | |
| Phorate | | | | |
| Pronamide | | | | |
| Propionitrile | | | | |
| Pyrene | | | | |
| Safrole | | | | |
| Selenium, total | 4.8 | <4.0 | <4.0 | <4.0 |
| Silver, total | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | |
| Styrene | <1 | <1 | <1 | <1 |
| 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 |
| 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-44

| Constituents | Units | 3/16/2022 | 11/13/2023 | 3/18/2024 |
|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | ug/L | | <1 | <1 |
| 1,1,1-trichloroethane | ug/L | | <1 | <1 |
| 1,1,2,2-tetrachloroethane | ug/L | | <1 | <1 |
| 1,1,2-trichloroethane | ug/L | | <1 | <1 |
| 1,1-dichloroethane | ug/L | | <1 | <1 |
| 1,1-dichloroethylene | ug/L | | <1 | <1 |
| 1,2,3-trichloropropane | ug/L | | <1 | <1 |
| 1,2-dibromo-3-chloropropane | ug/L | | <5 | <5 |
| 1,2-dibromoethane | ug/L | | <1 | <1 |
| 1,2-dichlorobenzene | ug/L | | <1 | <1 |
| 1,2-dichloroethane | ug/L | | <1 | <1 |
| 1,2-dichloropropane | ug/L | | <1 | <1 |
| 1,4-dichlorobenzene | ug/L | | <1 | <1 |
| 2-butanone (mek) | ug/L | | <10 | <10 |
| 2-hexanone (mbk) | ug/L | | <5 | <5 |
| 4-methyl-2-pentanone (mibk) | ug/L | | <5 | <5 |
| Acetone | ug/L | | <10 | <10 |
| Acrylonitrile | ug/L | | <5 | <5 |
| Antimony, total | ug/L | <2 | <2 | <2 |
| Arsenic, total | ug/L | <4 | <4 | <4 |
| Barium, total | ug/L | 124 | 137 | 154 |
| Benzene | ug/L | | <1 | <1 |
| Beryllium, total | ug/L | <4 | <4 | <4 |
| Bromochloromethane | ug/L | | <1 | <1 |
| Bromodichloromethane | ug/L | | <1 | <1 |
| Bromoform | ug/L | | <1 | <1 |
| Bromomethane | ug/L | | <1 | <1 |
| Cadmium, total | ug/L | <.8 | <.8 | <.8 |
| Carbon disulfide | ug/L | | <1 | <1 |
| Carbon tetrachloride | ug/L | | <1 | <1 |
| Chlorobenzene | ug/L | | <1 | <1 |
| Chloroethane | ug/L | | <1 | <1 |
| Chloroform | ug/L | | <1 | <1 |
| Chloromethane | ug/L | | <1 | <1 |
| Chromium, total | ug/L | <8 | <8 | <8 |
| Cis-1,2-dichloroethylene | ug/L | | <1 | <1 |
| Cis-1,3-dichloropropene | ug/L | | <1 | <1 |
| Cobalt, total | ug/L | <.4 | <.4 | <.4 |
| Copper, total | ug/L | 4.3 | <4.0 | <4.0 |
| Dibromochloromethane | ug/L | | <1 | <1 |
| Dibromomethane | ug/L | | <1 | <1 |
| Ethylbenzene | ug/L | | <1 | <1 |
| Lead, total | ug/L | 6.1 | <4.0 | <4.0 |
| Methyl iodide | ug/L | | <1 | <1 |
| Methylene chloride | ug/L | | <5 | <5 |
| Nickel, total | ug/L | <4 | <4 | <4 |
| Selenium, total | ug/L | <4 | <4 | <4 |
| Silver, total | ug/L | <4 | <4 | <4 |
| Styrene | ug/L | | <1 | <1 |
| Tetrachloroethylene | ug/L | | <1 | <1 |
| Thallium, total | ug/L | <2 | <2 | <2 |
| Toluene | ug/L | | <1 | <1 |
| Trans-1,2-dichloroethylene | ug/L | | <1 | <1 |
| Trans-1,3-dichloropropene | ug/L | | <1 | <1 |
| Trans-1,4-dichloro-2-butene | ug/L | | <5 | <5 |
| Trichloroethylene | ug/L | | <1 | <1 |
| Trichlorofluoromethane | ug/L | | <1 | <1 |
| Vanadium, total | ug/L | <20 | <20 | <20 |
| Vinyl acetate | ug/L | | <5 | <5 |
| Vinyl chloride | ug/L | | <1 | <1 |
| Xylenes, total | ug/L | | <2 | <2 |
| Zinc, total | ug/L | 69.2 | <20.0 | <20.0 |

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

## Table 9

### Analytical Data Summary for MW-53

| Constituents | Units | 8/1/2024 | 9/25/2024 |
|---|---|---|---|
| 1,1,1,2-tetrachloroethane | ug/L | <1 | <1 |
| 1,1,1-trichloroethane | ug/L | <1 | <1 |
| 1,1,2,2-tetrachloroethane | ug/L | <1 | <1 |
| 1,1,2-trichloroethane | ug/L | <1 | <1 |
| 1,1-dichloroethane | ug/L | <1 | <1 |
| 1,1-dichloroethylene | ug/L | <1 | <1 |
| 1,2,3-trichloropropane | ug/L | <1 | <1 |
| 1,2-dibromo-3-chloropropane | ug/L | <5 | <5 |
| 1,2-dibromoethane | ug/L | <1 | <1 |
| 1,2-dichlorobenzene | ug/L | <1 | <1 |
| 1,2-dichloroethane | ug/L | <1 | <1 |
| 1,2-dichloropropane | ug/L | <1 | <1 |
| 1,4-dichlorobenzene | ug/L | <1 | <1 |
| 2-butanone (mek) | ug/L | <10 | <10 |
| 2-hexanone (mbk) | ug/L | <5 | <5 |
| 4-methyl-2-pentanone (mibk) | ug/L | <5 | <5 |
| Acetone | ug/L | <10 | <10 |
| Acrylonitrile | ug/L | <5 | <5 |
| Antimony, total | ug/L | <2 | <2 |
| Arsenic, total | ug/L | <4 | <4 |
| Barium, total | ug/L | 46.2 | 58.9 |
| Benzene | ug/L | <1 | <1 |
| Beryllium, total | ug/L | <4 | <4 |
| Bromochloromethane | ug/L | <1 | <1 |
| Bromodichloromethane | ug/L | <1 | <1 |
| Bromoform | ug/L | <1 | <1 |
| Bromomethane | ug/L | <1 | <1 |
| Cadmium, total | ug/L | <.8 | <.8 |
| Carbon disulfide | ug/L | <1 | <1 |
| Carbon tetrachloride | ug/L | <1 | <1 |
| Chlorobenzene | ug/L | <1 | <1 |
| Chloroethane | ug/L | <1 | <1 |
| Chloroform | ug/L | <1 | <1 |
| Chloromethane | ug/L | <1 | <1 |
| Chromium, total | ug/L | <8 | <8 |
| Cis-1,2-dichloroethylene | ug/L | <1 | <1 |
| Cis-1,3-dichloropropene | ug/L | <1 | <1 |
| Cobalt, total | ug/L | <.4 | <.4 |
| Copper, total | ug/L | <4 | <4 |
| Dibromochloromethane | ug/L | <1 | <1 |
| Dibromomethane | ug/L | <1 | <1 |
| Ethylbenzene | ug/L | <1 | <1 |
| Lead, total | ug/L | <4 | <4 |
| Methyl iodide | ug/L | <1 | <1 |
| Methylene chloride | ug/L | <5 | <5 |
| Nickel, total | ug/L | <4 | <4 |
| Selenium, total | ug/L | <4 | <4 |
| Silver, total | ug/L | <4 | <4 |
| Styrene | ug/L | <1 | <1 |
| Tetrachloroethylene | ug/L | <1 | <1 |
| Thallium, total | ug/L | <2 | <2 |
| Toluene | ug/L | <1 | <1 |
| Trans-1,2-dichloroethylene | ug/L | <1 | <1 |
| Trans-1,3-dichloropropene | ug/L | <1 | <1 |
| Trans-1,4-dichloro-2-butene | ug/L | <5 | <5 |
| Trichloroethylene | ug/L | <1 | <1 |
| Trichlorofluoromethane | ug/L | <1 | <1 |
| Vanadium, total | ug/L | <20 | <20 |
| Vinyl acetate | ug/L | <5 | <5 |
| Vinyl chloride | ug/L | <1 | <1 |
| Xylenes, total | ug/L | <2 | <2 |
| Zinc, total | ug/L | <20 | <20 |

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

## Table 9

## Analytical Data Summary for MW-7

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/22/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| (3+4)-methylphenol | ug/L | | | | | | | | | |
| 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 | | | | | | | | | |
| 1,2,3-trichloropropane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2,4,5-tetrachlorobenzene | ug/L | | | | | | | | | |
| 1,2,4-trichlorobenzene | ug/L | | | | | | | | | |
| 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 | | | | | | | | | |
| 1,3,5-trinitrobenzene | ug/L | | | | | | | | | |
| 1,3-dichlorobenzene | ug/L | | | | | | | | | |
| 1,3-dichloropropane | ug/L | | | | | | | | | |
| 1,3-dinitrobenzene | ug/L | | | | | | | | | |
| 1,4-dichlorobenzene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,4-naphthoquinone | ug/L | | | | | | | | | |
| 1,4-phenylenediamine | ug/L | | | | | | | | | |
| 1-naphthylamine | ug/L | | | | | | | | | |
| 2,2-dichloropropane | ug/L | | | | | | | | | |
| 2,3,4,6-tetrachlorophenol | ug/L | | | | | | | | | |
| 2,4,5-t | ug/L | | | | | | | | | |
| 2,4,5-tp (silvex) | ug/L | | | | | | | | | |
| 2,4,5-trichlorophenol | ug/L | | | | | | | | | |
| 2,4,6-trichlorophenol | ug/L | | | | | | | | | |
| 2,4-d | ug/L | | | | | | | | | |
| 2,4-dichlorophenol | ug/L | | | | | | | | | |
| 2,4-dimethylphenol | ug/L | | | | | | | | | |
| 2,4-dinitrophenol | ug/L | | | | | | | | | |
| 2,4-dinitrotoluene | ug/L | | | | | | | | | |
| 2,6-dichlorophenol | ug/L | | | | | | | | | |
| 2,6-dinitrotoluene | ug/L | | | | | | | | | |
| 2-acetylaminofluorene | ug/L | | | | | | | | | |
| 2-butanone (mek) | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 2-chloronaphthalene | ug/L | | | | | | | | | |
| 2-chlorophenol | ug/L | | | | | | | | | |
| 2-hexanone (mbk) | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 2-methylnaphthalene | ug/L | | | | | | | | | |
| 2-methylphenol | ug/L | | | | | | | | | |
| 2-naphthylamine | ug/L | | | | | | | | | |
| 2-nitroaniline | ug/L | | | | | | | | | |
| 2-nitrophenol | ug/L | | | | | | | | | |
| 3,3´-dichlorobenzidine | ug/L | | | | | | | | | |
| 3,3'-dimethylbenzidine | ug/L | | | | | | | | | |
| 3-methylcholanthrene | ug/L | | | | | | | | | |
| 3-nitroaniline | ug/L | | | | | | | | | |
| 4,4´-ddd | ug/L | | | | | | | | | |
| 4,4´-dde | ug/L | | | | | | | | | |
| 4,4´-ddt | ug/L | | | | | | | | | |
| 4,6-dinitro-2-methylphenol | ug/L | | | | | | | | | |
| 4-aminobiphenyl | ug/L | | | | | | | | | |
| 4-bromophenyl phenyl ether | ug/L | | | | | | | | | |
| 4-chloro-3-methylphenol | ug/L | | | | | | | | | |
| 4-chloroaniline | ug/L | | | | | | | | | |
| 4-chlorophenyl phenyl ether | ug/L | | | | | | | | | |
| 4-methyl-2-pentanone (mibk) | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 4-nitroaniline | ug/L | | | | | | | | | |
| 4-nitrophenol | ug/L | | | | | | | | | |
| 5-nitro-o-toluidine | ug/L | | | | | | | | | |
| 7,12-dimethylbenz(a)anthracene | ug/L | | | | | | | | | |
| Acenaphthene | ug/L | | | | | | | | | |
| Acenaphthylene | ug/L | | | | | | | | | |
| Acetone | ug/L | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | 12.4 | <10.0 | <10.0 |
| Acetonitrile | ug/L | | | | | | | | | |
| Acetophenone | ug/L | | | | | | | | | |
| Acrolein | ug/L | | | | | | | | | |
| Acrylonitrile | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Aldrin | ug/L | | | | | | | | | |
| Allyl chloride | ug/L | | | | | | | | | |
| Alpha-bhc | ug/L | | | | | | | | | |
| Anthracene | ug/L | | | | | | | | | |

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

## Table 9

## Analytical Data Summary for MW-7

| Constituents | 3/7/2019 | 9/26/2019 | 12/17/2019 | 4/2/2020 | 9/17/2020 | 12/3/2020 | 3/25/2021 | 6/3/2021 | 9/16/2021 |
|---|---|---|---|---|---|---|---|---|---|
| (3+4)-methylphenol | | | | | | | <8 | | |
| 1,1,1,2-tetrachloroethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| 1,1,1-trichloroethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| 1,1,2,2-tetrachloroethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| 1,1,2-trichloroethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| 1,1-dichloroethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| 1,1-dichloroethylene | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| 1,1-dichloropropene | | | | | | | 3.7 | <1.0 | |
| 1,2,3-trichloropropane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| 1,2,4,5-tetrachlorobenzene | | | | | | | <8 | | |
| 1,2,4-trichlorobenzene | | | | | | | <1 | | |
| 1,2-dibromo-3-chloropropane | <1 | <1 | | <5 | <5 | | <1 | | <5 |
| 1,2-dibromoethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| 1,2-dichlorobenzene | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| 1,2-dichloroethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| 1,2-dichloropropane | <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 |
| 1,4-naphthoquinone | | | | | | | <8 | | |
| 1,4-phenylenediamine | | | | | | | <8 | | |
| 1-naphthylamine | | | | | | | <8 | | |
| 2,2-dichloropropane | | | | | | | <1 | | |
| 2,3,4,6-tetrachlorophenol | | | | | | | <8 | | |
| 2,4,5-t | | | | | | | 2.0 | <.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 |
| 2-chloronaphthalene | | | | | | | <8 | | |
| 2-chlorophenol | | | | | | | <8 | | |
| 2-hexanone (mbk) | <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 |
| 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 |
| Acetonitrile | | | | | | | <10 | | |
| Acetophenone | | | | | | | <8 | | |
| Acrolein | | | | | | | <10 | | |
| Acrylonitrile | <5 | <5 | | <5 | <5 | | <5 | | <5 |
| Aldrin | | | | | | | <.05 | | |
| Allyl chloride | | | | | | | <1 | | |
| Alpha-bhc | | | | | | | <.05 | | |
| Anthracene | | | | | | | <8 | | |

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

## Table 9

### Analytical Data Summary for MW-7

| Constituents | 3/16/2022 | 9/1/2022 | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|---|---|
| (3+4)-methylphenol | | <8 | | | | |
| 1,1,1,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,1-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2-trichloroethane | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethane | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloropropene | | <1.0 | | | | |
| 1,2,3-trichloropropane | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2,4,5-tetrachlorobenzene | | <8 | | | | |
| 1,2,4-trichlorobenzene | | <1 | | | | |
| 1,2-dibromo-3-chloropropane | <5 | <1 | <5 | <5 | <5 | <5 |
| 1,2-dibromoethane | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloroethane | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloropropane | <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 |
| 1,4-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) | <10 | <5 | <10 | <10 | <10 | <10 |
| 2-chloronaphthalene | | <8 | | | | |
| 2-chlorophenol | | <8 | | | | |
| 2-hexanone (mbk) | <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 |
| 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 |
| Acetonitrile | | <10 | | | | |
| Acetophenone | | <8 | | | | |
| Acrolein | | <10 | | | | |
| Acrylonitrile | <5 | <5 | <5 | <5 | <5 | <5 |
| Aldrin | | <.05 | | | | |
| Allyl chloride | | <1 | | | | |
| Alpha-bhc | | <.05 | | | | |
| Anthracene | | <8 | | | | |

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

## Table 9

## Analytical Data Summary for MW-7

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/22/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony, total | ug/L | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Arochlor 1016 | ug/L | | | | | | | | | |
| Arochlor 1221 | ug/L | | | | | | | | | |
| Arochlor 1232 | ug/L | | | | | | | | | |
| Arochlor 1242 | ug/L | | | | | | | | | |
| Arochlor 1248 | ug/L | | | | | | | | | |
| Arochlor 1254 | ug/L | | | | | | | | | |
| Arochlor 1260 | ug/L | | | | | | | | | |
| Arsenic, total | ug/L | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| Azobenzene | ug/L | | | | | | | | | |
| Barium, total | ug/L | 186 | 265 | 314 | 295 | 304 | 281 | 310 | 303 | 279 |
| Benzene | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Benzo(a)anthracene | ug/L | | | | | | | | | |
| Benzo(a)pyrene | ug/L | | | | | | | | | |
| Benzo(b)fluoranthene | ug/L | | | | | | | | | |
| Benzo(g,h,i)perylene | ug/L | | | | | | | | | |
| Benzo(k)fluoranthene | ug/L | | | | | | | | | |
| Benzyl alcohol | ug/L | | | | | | | | | |
| Beryllium, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Beta-bhc | ug/L | | | | | | | | | |
| Bis (2-chloroethoxy) methane | ug/L | | | | | | | | | |
| Bis(2-chloroethyl) ether | ug/L | | | | | | | | | |
| Bis(2-chloroisopropyl) ether | ug/L | | | | | | | | | |
| Bis(2-ethylhexyl) phthalate | ug/L | | | | | | | | | |
| 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 | | | | | | | | | |
| Cadmium, total | ug/L | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 |
| 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 | | | | | | | | | |
| Chlorobenzene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzilate | ug/L | | | | | | | | | |
| 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 |
| Chloroprene | ug/L | | | | | | | | | |
| Chromium, total | ug/L | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 |
| Chrysene | ug/L | | | | | | | | | |
| 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 | 2.0 | 3.1 | 9.2 | 6.9 | 8.4 | 6.3 | 8.4 | 11.6 | 6.9 |
| Copper, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Cyanide, total | mg/L | | | | | | | | | |
| Delta-bhc | ug/L | | | | | | | | | |
| Diallate | ug/L | | | | | | | | | |
| Dibenzo(a,h)anthracene | ug/L | | | | | | | | | |
| Dibenzofuran | ug/L | | | | | | | | | |
| 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 | | | | | | | | | |
| Dieldrin | ug/L | | | | | | | | | |
| Diethyl phthalate | ug/L | | | | | | | | | |
| Dimethoate | ug/L | | | | | | | | | |
| Dimethylphthalate | ug/L | | | | | | | | | |
| Di-n-butyl phthalate | ug/L | | | | | | | | | |
| Di-n-octyl phthalate | ug/L | | | | | | | | | |
| Dinoseb | ug/L | | | | | | | | | |
| Diphenylamine | ug/L | | | | | | | | | |
| Disulfoton | ug/L | | | | | | | | | |
| Endosulfan i | ug/L | | | | | | | | | |
| Endosulfan ii | ug/L | | | | | | | | | |
| Endosulfan sulfate | ug/L | | | | | | | | | |
| Endrin | ug/L | | | | | | | | | |
| Endrin aldehyde | ug/L | | | | | | | | | |
| Ethyl methacrylate | ug/L | | | | | | | | | |
| Ethyl methanesulfonate | ug/L | | | | | | | | | |
| Ethylbenzene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Famphur | ug/L | | | | | | | | | |
| Fluoranthene | ug/L | | | | | | | | | |
| Fluorene | ug/L | | | | | | | | | |
| Gamma-bhc (lindane) | ug/L | | | | | | | | | |
| Heptachlor | ug/L | | | | | | | | | |
| Heptachlor epoxide | ug/L | | | | | | | | | |
| Hexachlorobenzene | ug/L | | | | | | | | | |

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

## Table 9

## Analytical Data Summary for MW-7

| Constituents | 3/7/2019 | 9/26/2019 | 12/17/2019 | 4/2/2020 | 9/17/2020 | 12/3/2020 | 3/25/2021 | 6/3/2021 | 9/16/2021 |
|---|---|---|---|---|---|---|---|---|---|
| Antimony, total | <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 | <4.0 | 8.2 | 4.7 | <4.0 | 6.9 | 7.2 | <4.0 | | <4.0 |
| Azobenzene | | | | | | | <8 | | |
| Barium, total | 352 | 327 | | 320 | 332 | | 348 | | 280 |
| Benzene | <1.0 | <1.0 | | <1.0 | <1.0 | | <1.0 | | 1.4 |
| 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 |
| Beta-bhc | | | | | | | <.05 | | |
| Bis (2-chloroethoxy) methane | | | | | | | <8 | | |
| Bis(2-chloroethyl) ether | | | | | | | <8 | | |
| Bis(2-chloroisopropyl) ether | | | | | | | <8 | | |
| Bis(2-ethylhexyl) phthalate | | | | | | | <6 | | |
| Bromochloromethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Bromodichloromethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Bromoform | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Bromomethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Butyl benzyl phthalate | | | | | | | <8 | | |
| Cadmium, total | <.8 | <.8 | | <.8 | <.8 | | <.8 | | <.8 |
| Carbon disulfide | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Carbon tetrachloride | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Chlordane | | | | | | | <.1 | | |
| Chlorobenzene | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Chlorobenzilate | | | | | | | <8 | | |
| Chloroethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Chloroform | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Chloromethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Chloroprene | | | | | | | <1 | | |
| Chromium, total | <8 | <8 | | <8 | <8 | | <8 | | <8 |
| Chrysene | | | | | | | <8 | | |
| Cis-1,2-dichloroethylene | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Cis-1,3-dichloropropene | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Cobalt, total | 14.0 | 13.8 | | 12.2 | 16.2 | | 15.7 | | 9.1 |
| Copper, total | <4 | <4 | | <4 | <4 | | <4 | | <4 |
| Cyanide, total | | | | | | | <.005 | | |
| Delta-bhc | | | | | | | <.05 | | |
| Diallate | | | | | | | <8 | | |
| Dibenzo(a,h)anthracene | | | | | | | <8 | | |
| Dibenzofuran | | | | | | | <8 | | |
| Dibromochloromethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Dibromomethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Dichlorodifluoromethane | | | | | | | <1 | | |
| 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 |
| Famphur | | | | | | | <.4 | | |
| Fluoranthene | | | | | | | <8 | | |
| Fluorene | | | | | | | <8 | | |
| Gamma-bhc (lindane) | | | | | | | <.05 | | |
| Heptachlor | | | | | | | <.05 | | |
| Heptachlor epoxide | | | | | | | <.05 | | |
| Hexachlorobenzene | | | | | | | <.05 | | |

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

## Table 9

### Analytical Data Summary for MW-7

| Constituents | 3/16/2022 | 9/1/2022 | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|---|---|
| Antimony, total | <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 | 4.3 | 5.7 | <4.0 | 8.8 | 5.4 | 9.0 |
| Azobenzene | | <8 | | | | |
| Barium, total | 320 | 339 | 293 | 306 | 310 | 321 |
| Benzene | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 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 |
| Beta-bhc | | <.05 | | | | |
| Bis (2-chloroethoxy) methane | | <8 | | | | |
| Bis(2-chloroethyl) ether | | <8 | | | | |
| Bis(2-chloroisopropyl) ether | | <8 | | | | |
| Bis(2-ethylhexyl) phthalate | | 9 | <6 | | | |
| Bromochloromethane | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromodichloromethane | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromoform | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromomethane | <1 | <1 | <1 | <1 | <1 | <1 |
| Butyl benzyl phthalate | | <8 | | | | |
| Cadmium, total | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 |
| Carbon disulfide | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlordane | | <.1 | | | | |
| Chlorobenzene | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzilate | | <8 | | | | |
| Chloroethane | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroform | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloromethane | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroprene | | <1 | | | | |
| Chromium, total | <8 | <8 | <8 | <8 | <8 | <8 |
| Chrysene | | <8 | | | | |
| Cis-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 |
| Cis-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 |
| Cobalt, total | 15.6 | 10.9 | 9.2 | 9.4 | 8.7 | 10.1 |
| Copper, total | <4 | <4 | <4 | <4 | <4 | <4 |
| Cyanide, total | | <.005 | | | | |
| Delta-bhc | | <.05 | | | | |
| Diallate | | <8 | | | | |
| Dibenzo(a,h)anthracene | | <8 | | | | |
| Dibenzofuran | | <8 | | | | |
| Dibromochloromethane | <1 | <1 | <1 | <1 | <1 | <1 |
| Dibromomethane | <1 | <1 | <1 | <1 | <1 | <1 |
| Dichlorodifluoromethane | | <1 | | | | |
| 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 |
| Famphur | | <.4 | | | | |
| Fluoranthene | | <8 | | | | |
| Fluorene | | <8 | | | | |
| Gamma-bhc (lindane) | | <.05 | | | | |
| Heptachlor | | <.05 | | | | |
| Heptachlor epoxide | | <.05 | | | | |
| Hexachlorobenzene | | <.05 | | | | |

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

## Table 9

## Analytical Data Summary for MW-7

| Constituents | Units | 9/17/2014 | 4/28/2015 | 10/6/2015 | 4/23/2016 | 9/1/2016 | 3/22/2017 | 10/13/2017 | 3/9/2018 | 9/6/2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| Hexachlorobutadiene | ug/L | | | | | | | | | |
| Hexachlorocyclopentadiene | ug/L | | | | | | | | | |
| Hexachloroethane | ug/L | | | | | | | | | |
| Hexachloropropene | ug/L | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | ug/L | | | | | | | | | |
| Isobutanol | mg/L | | | | | | | | | |
| Isodrin | ug/L | | | | | | | | | |
| Isophorone | ug/L | | | | | | | | | |
| Isosafrole | ug/L | | | | | | | | | |
| Kepone | ug/L | | | | | | | | | |
| Lead, total | ug/L | <4.0 | <4.0 | 4.5 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| Mercury, total | ug/L | | | | | | | | | |
| Methacrylonitrile | ug/L | | | | | | | | | |
| Methapyrilene | ug/L | | | | | | | | | |
| Methoxychlor | ug/L | | | | | | | | | |
| Methyl iodide | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Methyl methacrylate | ug/L | | | | | | | | | |
| Methyl methanesulfonate | ug/L | | | | | | | | | |
| Methyl parathion | ug/L | | | | | | | | | |
| Methylene chloride | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Naphthalene | ug/L | | | | | | | | | |
| Nickel, total | ug/L | 13.3 | 16.2 | 17.4 | 19.7 | 16.8 | 16.2 | 16.9 | 24.4 | 16.0 |
| Nitrobenzene | ug/L | | | | | | | | | |
| N-nitrosodiethylamine | ug/L | | | | | | | | | |
| N-nitrosodimethylamine | ug/L | | | | | | | | | |
| N-nitrosodi-n-butylamine | ug/L | | | | | | | | | |
| N-nitroso-di-n-propylamine | ug/L | | | | | | | | | |
| N-nitrosodiphenylamine | ug/L | | | | | | | | | |
| N-nitrosomethylethylamine | ug/L | | | | | | | | | |
| N-nitrosopiperidine | ug/L | | | | | | | | | |
| N-nitrosopyrrolidine | ug/L | | | | | | | | | |
| O,o,o-triethyl phosphorothioate | ug/L | | | | | | | | | |
| O-toluidine | ug/L | | | | | | | | | |
| Parathion | ug/L | | | | | | | | | |
| P-dimethylaminoazobenzene | ug/L | | | | | | | | | |
| Pentachlorobenzene | ug/L | | | | | | | | | |
| Pentachloronitrobenzene (pcnb) | ug/L | | | | | | | | | |
| Pentachlorophenol | ug/L | | | | | | | | | |
| Phenacetin | ug/L | | | | | | | | | |
| Phenanthrene | ug/L | | | | | | | | | |
| Phenol | ug/L | | | | | | | | | |
| Phorate | ug/L | | | | | | | | | |
| Pronamide | ug/L | | | | | | | | | |
| Propionitrile | ug/L | | | | | | | | | |
| Pyrene | ug/L | | | | | | | | | |
| Safrole | ug/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 | <8 |
| Solids, total suspended | mg/L | 7 | 19 | 5 | 6 | 11 | 9 | 103 | | |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulfide, total | 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 |
| Thionazin | ug/L | | | | | | | | | |
| Tin, total | ug/L | | | | | | | | | |
| Toluene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Toxaphene | ug/L | | | | | | | | | |
| 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 | <8.0 | <8.0 | 8.4 | <20.0 | <8.0 | <8.0 | <8.0 | <8.0 | 20.8 |

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

## Table 9

## Analytical Data Summary for MW-7

| Constituents | 3/7/2019 | 9/26/2019 | 12/17/2019 | 4/2/2020 | 9/17/2020 | 12/3/2020 | 3/25/2021 | 6/3/2021 | 9/16/2021 |
|---|---|---|---|---|---|---|---|---|---|
| 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 |
| Mercury, total | | | | | | | <.5 | | |
| Methacrylonitrile | | | | | | | <1 | | |
| Methapyrilene | | | | | | | <8 | | |
| Methoxychlor | | | | | | | <.05 | | |
| Methyl iodide | <1 | <1 | | <1 | <1 | | <2 | | <1 |
| Methyl methacrylate | | | | | | | <1 | | |
| Methyl methanesulfonate | | | | | | | <8 | | |
| Methyl parathion | | | | | | | <.4 | | |
| Methylene chloride | <5 | <5 | | <5 | <5 | | <5 | | <5 |
| Naphthalene | | | | | | | <8 | | |
| Nickel, total | 23.2 | 17.0 | | 19.8 | 20.8 | | 23.9 | | 19.7 |
| 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 | | |
| Pronamide | | | | | | | <8 | | |
| Propionitrile | | | | | | | <10 | | |
| Pyrene | | | | | | | <8 | | |
| Safrole | | | | | | | <8 | | |
| Selenium, total | <4 | <4 | | <4 | <4 | | <4 | | <4 |
| Silver, total | <4 | <4 | | <4 | <4 | | <4 | | <4 |
| Solids, total suspended | | | | | | | | | |
| Styrene | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Sulfide, total | | | | | | | <.1 | | |
| Tetrachloroethylene | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Thallium, total | <2 | <2 | | <2 | <2 | | <2 | | <2 |
| Thionazin | | | | | | | <.4 | | |
| Tin, total | | | | | | | <20 | | |
| Toluene | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Toxaphene | | | | | | | <.2 | | |
| Trans-1,2-dichloroethylene | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Trans-1,3-dichloropropene | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Trans-1,4-dichloro-2-butene | <5 | <5 | | <5 | <5 | | <5 | | <5 |
| Trichloroethylene | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Trichlorofluoromethane | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Vanadium, total | <20 | <20 | | <20 | <20 | | <20 | | <20 |
| Vinyl acetate | <5 | <5 | | <5 | <5 | | <5 | | <5 |
| Vinyl chloride | <1 | <1 | | <1 | <1 | | <1 | | <1 |
| Xylenes, total | <2 | <2 | | <2 | <2 | | <2 | | <2 |
| Zinc, total | <8.0 | 25.6 | | <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-7

| Constituents | 3/16/2022 | 9/1/2022 | 3/24/2023 | 9/7/2023 | 3/18/2024 | 9/25/2024 |
|---|---|---|---|---|---|---|
| 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 |
| Mercury, total | | <.5 | | | | |
| Methacrylonitrile | | <1 | | | | |
| Methapyrilene | | <8 | | | | |
| Methoxychlor | | <.05 | | | | |
| Methyl iodide | <1 | <2 | <1 | <1 | <1 | <1 |
| Methyl methacrylate | | <1 | | | | |
| Methyl methanesulfonate | | <8 | | | | |
| Methyl parathion | | <.4 | | | | |
| Methylene chloride | <5 | <5 | <5 | <5 | <5 | <5 |
| Naphthalene | | <8 | | | | |
| Nickel, total | 22.1 | 19.3 | 15.4 | 17.0 | 14.2 | 16.6 |
| 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 | | | | |
| Phenacetin | | <8 | | | | |
| Phenanthrene | | <8 | | | | |
| Phenol | | <8 | | | | |
| Phorate | | <.4 | | | | |
| Pronamide | | <8 | | | | |
| Propionitrile | | <10 | | | | |
| Pyrene | | <8 | | | | |
| Safrole | | <8 | | | | |
| Selenium, total | <4 | <4 | <4 | <4 | <4 | <4 |
| Silver, total | <4 | <4 | <4 | <4 | <4 | <4 |
| Solids, total suspended | | | | | | |
| Styrene | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulfide, total | | <.1 | | | | |
| Tetrachloroethylene | <1 | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | <2 | <2 | <2 | <2 | <2 | <2 |
| Thionazin | | <.4 | | | | |
| Tin, total | | <20 | | | | |
| Toluene | <1 | <1 | <1 | <1 | <1 | <1 |
| Toxaphene | | <.2 | | | | |
| Trans-1,2-dichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,4-dichloro-2-butene | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethylene | <1 | <1 | <1 | <1 | <1 | <1 |
| Trichlorofluoromethane | <1 | <1 | <1 | <1 | <1 | <1 |
| Vanadium, total | <20 | <20 | <20 | <20 | <20 | <20 |
| Vinyl acetate | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl chloride | <1 | <1 | <1 | <1 | <1 | <1 |
| Xylenes, total | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 |

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

Table 10 – Historic SSI and SSL

**Table 10**
**Historic SSI & SSL**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| 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) | 95% LCL (ug/L) | 95% UCL (ug/L) | GWPS Limit (ug/L) |
|---|---|---|---|---|---|---|
| MW-18 | Arsenic | 9/17/2014 | 22.00 | --- | --- | 10 |
| MW-18 | Arsenic | 4/28/2015 | 45.90 | --- | --- | 10 |
| MW-18 | Arsenic | 10/6/2015 | 39.20 | --- | --- | 10 |
| MW-18 | Arsenic | 4/23/2016 | 51.80 | 28.563 | 50.887 | 10 |
| MW-18 | Arsenic | 9/1/2016 | 81.40 | 38.459 | 70.691 | 10 |
| MW-18 | Arsenic | 3/21/2017 | 49.70 | 39.842 | 71.208 | 10 |
| MW-18 | Arsenic | 10/13/2017 | 50.10 | 44.861 | 71.639 | 10 |
| MW-18 | Arsenic | 3/9/2018 | 46.10 | 42.551 | 71.099 | 10 |
| MW-18 | Arsenic | 9/6/2018 | 74.40 | 43.809 | 66.341 | 10 |
| MW-18 | Arsenic | 3/7/2019 | 87.20 | 47.426 | 81.474 | 10 |
| MW-18 | Arsenic | 9/26/2019 | 99.20 | 56.988 | 96.462 | 10 |
| MW-18 | Arsenic | 4/2/2020 | 81.70 | 76.567 | 94.683 | 10 |
| MW-18 | Arsenic | 9/17/2020 | 34.80 | 51.264 | 100.186 | 10 |
| MW-18 | Arsenic | 3/25/2021 | 9.60 | 20.518 | 92.132 | 10 |
| MW-18 | Arsenic | 9/16/2021 | 36.00 | 14.520 | 66.530 | 10 |
| MW-18 | Arsenic | 3/16/2022 | 34.70 | 13.722 | 43.828 | 10 |
| MW-18 | Arsenic | 9/1/2022 | 24.10 | 11.722 | 40.478 | 10 |
| MW-18 | Arsenic | 3/24/2023 | 67.40 | 18.581 | 62.519 | 10 |
| MW-18 | Arsenic | 9/7/2023 | 26.90 | 14.834 | 61.716 | 10 |
| MW-18 | Arsenic | 9/7/2023 | 23.70 | 10.473 | 60.577 | 10 |
| MW-18 | Arsenic | 9/7/2023 | 43.60 | 16.871 | 63.929 | 10 |

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

**Table 10**
**Historic SSI & SSL**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| 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) | 95% LCL (ug/L) | 95% UCL (ug/L) | GWPS Limit (ug/L) |
|---|---|---|---|---|---|---|
| MW-20 | Arsenic | 9/18/2014 | 75.20 | --- | --- | 10 |
| MW-20 | Arsenic | 4/28/2015 | 45.50 | --- | --- | 10 |
| MW-20 | Arsenic | 10/6/2015 | 81.70 | --- | --- | 10 |
| MW-20 | Arsenic | 4/23/2016 | 81.50 | 56.037 | 85.913 | 10 |
| MW-20 | Arsenic | 9/1/2016 | 77.10 | 56.355 | 86.545 | 10 |
| MW-20 | Arsenic | 3/21/2017 | 79.10 | 77.961 | 81.739 | 10 |
| MW-20 | Arsenic | 10/13/2017 | 96.80 | 75.861 | 91.389 | 10 |
| MW-20 | Arsenic | 3/9/2018 | 83.40 | 76.422 | 91.788 | 10 |
| MW-20 | Arsenic | 9/6/2018 | 99.60 | 81.058 | 98.392 | 10 |
| MW-20 | Arsenic | 3/7/2019 | 78.40 | 80.666 | 98.434 | 10 |
| MW-20 | Arsenic | 9/26/2019 | 83.60 | 78.266 | 94.234 | 10 |
| MW-20 | Arsenic | 4/2/2020 | 65.20 | 69.380 | 94.020 | 10 |
| MW-20 | Arsenic | 9/17/2020 | 87.10 | 70.256 | 86.894 | 10 |
| MW-20 | Arsenic | 3/25/2021 | 106.00 | 70.997 | 99.953 | 10 |
| MW-20 | Arsenic | 9/16/2021 | 87.80 | 72.068 | 100.982 | 10 |
| MW-20 | Arsenic | 3/16/2022 | 127.00 | 79.816 | 124.134 | 10 |
| MW-20 | Arsenic | 9/1/2022 | 133.00 | 89.160 | 137.740 | 10 |
| MW-20 | Arsenic | 3/24/2023 | 94.60 | 83.892 | 137.308 | 10 |
| MW-20 | Arsenic | 9/7/2023 | 83.40 | 80.995 | 138.005 | 10 |
| MW-20 | Arsenic | 3/18/2024 | 112.00 | 80.290 | 131.210 | 10 |
| MW-20 | Arsenic | 9/25/2024 | 44.10 | 49.651 | 117.399 | 10 |

**Table 10**
**Historic SSI & SSL**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| 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) | 95% LCL (ug/L) | 95% UCL (ug/L) | GWPS Limit (ug/L) |
|---|---|---|---|---|---|---|
| MW-20 | Barium | 9/18/2014 | 2370.0 | --- | --- | 2000 |
| MW-20 | Barium | 4/28/2015 | 2390.0 | --- | --- | 2000 |
| MW-20 | Barium | 10/6/2015 | 2490.0 | --- | --- | 2000 |
| MW-20 | Barium | 4/23/2016 | 2260.0 | 2295.838 | 2459.162 | 2000 |
| MW-20 | Barium | 9/1/2016 | 2140.0 | 2187.902 | 2452.098 | 2000 |
| MW-20 | Barium | 3/21/2017 | 2140.0 | 2114.606 | 2400.394 | 2000 |
| MW-20 | Barium | 10/13/2017 | 2340.0 | 2135.147 | 2304.853 | 2000 |
| MW-20 | Barium | 3/9/2018 | 2010.0 | 2039.522 | 2275.478 | 2000 |
| MW-20 | Barium | 9/6/2018 | 2360.0 | 2067.349 | 2357.651 | 2000 |
| MW-20 | Barium | 3/7/2019 | 2100.0 | 2051.441 | 2353.559 | 2000 |
| MW-20 | Barium | 9/26/2019 | 2350.0 | 2051.621 | 2358.379 | 2000 |
| MW-20 | Barium | 4/2/2020 | 2300.0 | 2172.530 | 2382.470 | 2000 |
| MW-20 | Barium | 9/17/2020 | 1970.0 | 2026.866 | 2333.134 | 2000 |
| MW-20 | Barium | 3/25/2021 | 1970.0 | 1969.122 | 2325.878 | 2000 |
| MW-20 | Barium | 9/16/2021 | 2160.0 | 1960.896 | 2239.104 | 2000 |
| MW-20 | Barium | 3/16/2022 | 1890.0 | 1862.568 | 2132.432 | 2000 |
| MW-20 | Barium | 9/1/2022 | 2020.0 | 1876.572 | 2143.428 | 2000 |
| MW-20 | Barium | 3/24/2023 | 2000.0 | 1887.087 | 2147.913 | 2000 |
| MW-20 | Barium | 9/7/2023 | 1810.0 | 1814.348 | 2045.652 | 2000 |
| MW-20 | Barium | 3/18/2024 | 2110.0 | 1836.676 | 2133.324 | 2000 |
| MW-20 | Barium | 9/25/2024 | 1950.0 | 1821.093 | 2113.907 | 2000 |

Table 11 – Corrective Action Trend Analysis

**Table 11**
**Corrective Action Trend Analysis**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| Monitoring Well | Compound | Sample Date | Current Condition | Trend | N | Projected Year to Completion (IAC 113.10(9)"e" |
|---|---|---|---|---|---|---|
| MW-18 | Arsenic | 9/17/2014 | SSI | increasing | NA | NA |
| MW-18 | Arsenic | 4/28/2015 | SSI | increasing | NA | NA |
| MW-18 | Arsenic | 10/6/2015 | SSI | increasing | NA | NA |
| MW-18 | Arsenic | 4/23/2016 | **SSL** | increasing | 1 | NA |
| MW-18 | Arsenic | 9/1/2016 | **SSL** | increasing | 2 | NA |
| MW-18 | Arsenic | 3/21/2017 | **SSL** | increasing | 3 | NA |
| MW-18 | Arsenic | 10/13/2017 | **SSL** | increasing | 4 | NA |
| MW-18 | Arsenic | 3/9/2018 | **SSL** | increasing | 5 | NA |
| MW-18 | Arsenic | 9/6/2018 | **SSL** | increasing | 6 | NA |
| MW-18 | Arsenic | 3/7/2019 | **SSL** | increasing | 7 | NA |
| MW-18 | Arsenic | 9/26/2019 | **SSL** | increasing | 8 | NA |
| MW-18 | Arsenic | 4/2/2020 | **SSL** | increasing | 9 | NA |
| MW-18 | Arsenic | 9/17/2020 | **SSL** | ***decreasing*** | **10** | NA |
| MW-18 | Arsenic | 3/25/2021 | **SSL** | ***decreasing*** | **11** | NA |
| MW-18 | Arsenic | 9/16/2021 | **SSL** | ***decreasing*** | **12** | NA |
| MW-18 | Arsenic | 3/16/2022 | **SSL** | ***decreasing*** | **13** | NA |
| MW-18 | Arsenic | 9/1/2022 | **SSL** | ***decreasing*** | **14** | NA |
| MW-18 | Arsenic | 3/24/2023 | **SSL** | ***decreasing*** | **15** | NA |
| MW-18 | Arsenic | 9/7/2023 | **SSL** | ***decreasing*** | **16** | NA |
| MW-18 | Arsenic | 9/7/2023 | **SSL** | ***decreasing*** | **17** | NA |
| MW-18 | Arsenic | 9/7/2023 | **SSL** | ***decreasing*** | **18** | NA |

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

**Table 11**
**Corrective Action Trend Analysis**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| Monitoring Well | Compound | Sample Date | Current Condition | Trend | N | Projected Year to Completion (IAC 113.10(9)"e" |
|---|---|---|---|---|---|---|
| MW-20 | Arsenic | 9/18/2014 | SSI | NA | NA | NA |
| MW-20 | Arsenic | 4/28/2015 | SSI | NA | NA | NA |
| MW-20 | Arsenic | 10/6/2015 | SSI | NA | NA | NA |
| MW-20 | Arsenic | 4/23/2016 | **SSL** | Static | 1 | NA |
| MW-20 | Arsenic | 9/1/2016 | **SSL** | Static | 2 | NA |
| MW-20 | Arsenic | 3/21/2017 | **SSL** | Static | 3 | NA |
| MW-20 | Arsenic | 10/13/2017 | **SSL** | Static | 4 | NA |
| MW-20 | Arsenic | 3/9/2018 | **SSL** | Static | 5 | NA |
| MW-20 | Arsenic | 9/6/2018 | **SSL** | Static | 6 | NA |
| MW-20 | Arsenic | 3/7/2019 | **SSL** | Static | 7 | NA |
| MW-20 | Arsenic | 9/26/2019 | **SSL** | Static | 8 | NA |
| MW-20 | Arsenic | 4/2/2020 | **SSL** | Static | 9 | NA |
| MW-20 | Arsenic | 9/17/2020 | **SSL** | Static | 10 | NA |
| MW-20 | Arsenic | 3/25/2021 | **SSL** | Static | 11 | NA |
| MW-20 | Arsenic | 9/16/2021 | **SSL** | Static | 12 | NA |
| MW-20 | Arsenic | 3/16/2022 | **SSL** | Static | 13 | NA |
| MW-20 | Arsenic | 9/1/2022 | **SSL** | Static | 14 | NA |
| MW-20 | Arsenic | 3/24/2023 | **SSL** | Static | 15 | NA |
| MW-20 | Arsenic | 9/7/2023 | **SSL** | Static | 16 | NA |
| MW-20 | Arsenic | 3/18/2024 | **SSL** | Static | 17 | NA |
| MW-20 | Arsenic | 9/25/2024 | **SSL** | Static | 18 | NA |

**Table 11**
**Corrective Action Trend Analysis**
**Annual Water Quality Report**
**Page County Sanitary Landfill**
**Permit No. 73-SDP-01-75P**

| Monitoring Well | Compound | Sample Date | Current Condition | Trend | N | Projected Year to Completion (IAC 113.10(9)"e" |
|---|---|---|---|---|---|---|
| MW-20 | Barium | 9/18/2014 | SSI | NA | NA | NA |
| MW-20 | Barium | 4/28/2015 | SSI | NA | NA | NA |
| MW-20 | Barium | 10/6/2015 | SSI | NA | NA | NA |
| MW-20 | Barium | 4/23/2016 | **SSL** | decreasing | 1 | NA |
| MW-20 | Barium | 9/1/2016 | **SSL** | decreasing | 2 | NA |
| MW-20 | Barium | 3/21/2017 | **SSL** | decreasing | 3 | NA |
| MW-20 | Barium | 10/13/2017 | **SSL** | decreasing | 4 | NA |
| MW-20 | Barium | 3/9/2018 | **SSL** | decreasing | 5 | NA |
| MW-20 | Barium | 9/6/2018 | **SSL** | decreasing | 6 | NA |
| MW-20 | Barium | 3/7/2019 | **SSL** | decreasing | 7 | NA |
| MW-20 | Barium | 9/26/2019 | **SSL** | decreasing | 8 | NA |
| MW-20 | Barium | 4/2/2020 | **SSL** | decreasing | 9 | NA |
| MW-20 | Barium | 9/17/2020 | **SSL** | decreasing | 10 | NA |
| MW-20 | Barium | 3/25/2021 | **SSL** | decreasing | 11 | NA |
| MW-20 | Barium | 9/16/2021 | **SSL** | decreasing | 12 | NA |
| MW-20 | Barium | 3/16/2022 | **SSL** | decreasing | 13 | NA |
| MW-20 | Barium | 9/1/2022 | **SSL** | decreasing | 14 | NA |
| MW-20 | Barium | 3/24/2023 | **SSL** | decreasing | 15 | NA |
| MW-20 | Barium | 9/7/2023 | **SSL** | decreasing | 16 | NA |
| MW-20 | Barium | 3/18/2024 | **SSL** | decreasing | 17 | NA |
| MW-20 | Barium | 9/25/2024 | **SSL** | decreasing | 18 | NA |

Table 12 – Gas Monitoring Summary

**Table 12**
**Page County Sanitary Landfill**
**73-SDP-01-75P**
**EXPLOSIVE GAS MONITORING**

| | 3/18/2024 | 6/5/2024 | 9/25/2024 | 11/25/2024 |
|---|---|---|---|---|
| | % LEL | % LEL | % LEL | % LEL |
| **Office** | 0 | 0 | 0 | 0 |
| **Recycling Building** | 0 | 0 | 0 | 0 |
| **Equipment Building** | 0 | 0 | 0 | 0 |
| **Shop Building** | 0 | 0 | 0 | 0 |
| **GP-1** | 0 | 0 | 0 | 0 |
| **GP-2** | 0 | 0 | 0 | 0 |
| **GP-3** | 0 | 0 | 0 | 0 |
| **GP-4** | 0 | 0 | 0 | 0 |
| **GP-5** | **95.1** | 0 | **72** | 0 |
| **GP-5A** | 0 | 0 | 0 | 0 |
| **GWD-1** | 0 | 0 | 0 | 0 |
| **GWD-2** | buried | buried | buried | buried |
| **GWD-3** | DNE | DNE | 0 | NM |
| **GWD-4** | DNE | DNE | 0 | NM |

DNE - Did not exist
NM - Not measured

Elevated levels of gas in GP-5 addressed with installation of GP-5A

# Appendix A

# Field Sampling Forms

**PAGE COUNTY SANITARY LANDFILL**
**PERMIT # 73-SDP-01-75P**

3/18/2024 Sampled by: Glenn Hunter Weather Conditions: cloudy to sunny, 21-39 degrees

**IDNR Form 542-1322**

**Monitoring Well:** MW-1D

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1185.49 |
| Well Depth | 34.55 |
| 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 | 1185.49 |
| Well Depth | 34.55 |
| Top Screen | 1160.94 |
| Bottom Screen | 1150.94 |
| Bottom Well | 1150.94 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 28.00 |
| Top sample | 1157.49 |
| Bottom sample | 1153.49 |
| Turbidity(NTU) | 4.21 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 3/18/2024 | 8:26 | 21.72 | 1163.769 | |

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 4.21 |
| Appendix I | Metals | 250 | 250 | | 4.21 |
| Appendix I | VOC | 120 | 120 | | 4.21 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1185.49 | Before purging | 3/18/2024 | 8:26 | 21.72 | 1163.77 | 2.5 | 1.2 | no |
| Well Depth | 34.55 | After purging | | | | 1185.49 | | | |
| | | Top of Screen January 1990 | | | | 1160.94 | | | |
| | | | | | | 24.55 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1150.94 | | | |
| | | Bottom of Well | 3/18/2024 | | 34.55 | 1150.94 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1185.49 | | | |
| | | Recovery | 3/18/2024 | 8:31 | 31.70 | 1153.79 | | | |
| | | Recovery | 3/18/2024 | 15:36 | 25.85 | 1159.64 | | | |
| | | Recovery | | | | 1185.49 | | | |
| | | Recovery | | | | 1185.49 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-3

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1145.59 |
| Well Depth | 39.75 |
| 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 | 1145.59 |
| Well Depth | 39.75 |
| Top Screen | 1115.84 |
| Bottom Screen | 1105.84 |
| Bottom Well | 1105.84 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 33.00 |
| Top sample | 1112.59 |
| Bottom sample | 1108.59 |
| Turbidity(NTU) | 6.40 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 3/18/2024 | 9:27 | 22.05 | 1123.54 | |

**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 | | 6.40 |
| Appendix I | Metals | 250 | 250 | | 6.40 |
| Appendix I | VOC | 120 | 120 | | 6.40 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1145.59 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 39.75 | Before purging | 3/18/2024 | 9:27 | 22.05 | 1123.54 | 2.5 | 0.9 | no |
| | | After purging | | | | 1145.59 | | | |
| | | Top of Screen January 1990 | | | | 1115.84 | | | |
| | | | | | | 7.70 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1105.84 | | | |
| | | Bottom of Well | 3/18/2024 | | 39.75 | 1105.84 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1145.59 | | | |
| | | Recovery | 3/18/2024 | 9:32 | 31.07 | 1114.52 | | | |
| | | Recovery | 3/18/2024 | 15:45 | 22.00 | 1123.59 | | | |
| | | Recovery | | | | 1145.59 | | | |
| | | Recovery | | | | 1145.59 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-7

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1118.81 |
| Well Depth | 31.82 |
| Capped | YES |
| Standing Water | NO |
| Litter | NO |
| Level Tape | Solinst 101 |
| NTU Meter | Hach 2100P |
| No-Purge Equipment - | Solinst 429 |
| Purge Equipment - | Waterra |

**NO PURGE METHOD**

| | |
|---|---|
| TOC | 1118.81 |
| Well Depth | 31.82 |
| Top Screen | 1097.01 |
| Bottom Screen | 1087.01 |
| Bottom Well | 1086.99 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 25.00 |
| Top sample | 1093.81 |
| Bottom sample | 1089.81 |
| Turbidity(NTU) | 3.13 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 3/18/2024 | 11:44 | 20.00 | 1098.81 | |

**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 | | 3.13 |
| Appendix I | Metals | 250 | 250 | | 3.13 |
| Appendix I | VOC | 120 | 120 | | 3.13 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1118.81 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 31.82 | Before purging | 3/18/2024 | 11:44 | 20.00 | 1098.81 | 2.5 | 1.3 | no |
| | | After purging | | | | 1118.81 | | | |
| | | Top of Screen January 1990 | | | | 1097.01 | | | |
| | | | | | | 1.80 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1087.01 | | | |
| | | Bottom of Well | 3/18/2024 | | 31.82 | 1086.99 | | | |
| | | | | | | -0.02 | feet sedimentation | | |
| | | Before Sampling | | | | 1118.81 | | | |
| | | Recovery | 3/18/2024 | 11:52 | 25.32 | 1093.49 | | | |
| | | Recovery | 3/18/2024 | 16:15 | 19.98 | 1098.83 | | | |
| | | Recovery | | | | 1118.81 | | | |
| | | Recovery | | | | 1118.81 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-10
Background Well

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1151.88 |
| Well Depth | 35.40 |
| 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 | 1151.88 |
| Well Depth | 35.40 |
| Top Screen | 1126.48 |
| Bottom Screen | 1116.48 |
| Bottom Well | 1116.48 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 31.00 |
| Top sample | 1120.88 |
| Bottom sample | 1116.88 |
| Turbidity(NTU) | 7.01 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 3/18/2024 | 12:25 | 32.70 | 1119.18 | |

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 7.01 |
| Appendix I | Metals | 250 | 250 | | 7.01 |
| Appendix I | VOC | 120 | 120 | | 7.01 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1151.88 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 35.40 | Before purging | 3/18/2024 | 12:25 | 32.70 | 1119.18 | 1 | 2.3 | no |
| | | After purging | | | | 1151.88 | | | |
| | | Top of Screen January 1990 | | | | 1126.48 | | | |
| | | | | | | -7.30 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1116.48 | | | |
| | | Bottom of Well | 3/18/2024 | | 35.40 | 1116.48 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1151.88 | | | |
| | | Recovery | 3/18/2024 | 12:30 | 33.70 | 1118.18 | | | |
| | | Recovery | 3/18/2024 | 16:18 | 33.00 | 1118.88 | | | |
| | | Recovery | | | | 1151.88 | | | |
| | | Recovery | | | | 1151.88 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-44
Background Well

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1166.36 |
| Well Depth | 47.18 |
| 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 | 1166.36 |
| Well Depth | 47.18 |
| Top Screen | 1129.18 |
| Bottom Screen | 1119.18 |
| Bottom Well | 1119.18 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 41.00 |
| Top sample | 1125.36 |
| Bottom sample | 1121.36 |
| Turbidity(NTU) | 4.26 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 3/18/2024 | 8:47 | 15.95 | 1150.41 | |

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 4.26 |
| Appendix I | Metals | 250 | 250 | | 4.26 |
| Appendix I | VOC | 120 | 120 | | 4.26 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1166.36 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 47.18 | Before purging | 3/18/2024 | 8:47 | 15.95 | 1150.41 | 3 | 0.6 | no |
| | | After purging | | | | 1166.36 | | | |
| | | Top of Screen January 1990 | | | | 1129.18 | | | |
| | | | | | | 21.23 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1119.18 | | | |
| | | Bottom of Well | 3/18/2024 | | 47.18 | 1119.18 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1166.36 | | | |
| | | Recovery | 3/18/2024 | 8:52 | 34.39 | 1131.97 | | | |
| | | Recovery | 3/18/2024 | 15:40 | 17.79 | 1148.57 | | | |
| | | Recovery | | | | 1166.36 | | | |
| | | Recovery | | | | 1166.36 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-13

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1127.99 |
| Well Depth | 42.88 |
| Capped | YES |
| Standing Water | NO |
| Litter | NO |
| Level Tape | Solinst 101 |
| NTU Meter | Hach 2100P |
| No-Purge Equipment - | Solinst 429 |
| Purge Equipment - | Waterra |

**NO PURGE METHOD**

| | |
|---|---|
| TOC | 1127.99 |
| Well Depth | 42.88 |
| Top Screen | 1095.11 |
| Bottom Screen | 1085.11 |
| Bottom Well | 1085.11 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 36.00 |
| Top sample | 1091.99 |
| Bottom sample | 1087.99 |
| Turbidity(NTU) | 1.33 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 3/18/2024 | 11:08 | 18.30 | 1109.69 | |

**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 | | 1.33 |
| Appendix I | Metals | 250 | 250 | | 1.33 |
| Appendix I | VOC | 120 | 120 | | 1.33 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1127.99 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 42.88 | Before purging | 3/18/2024 | 11:08 | 18.30 | 1109.69 | 2.5 | 0.6 | no |
| | | After purging | | | | 1127.99 | | | |
| | | Top of Screen January 1990 | | | | 1095.11 | | | |
| | | | | | | 14.58 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1085.11 | | | |
| | | Bottom of Well | 3/18/2024 | | 42.88 | 1085.11 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1127.99 | | | |
| | | Recovery | 3/18/2024 | 11:13 | 33.80 | 1094.19 | | | |
| | | Recovery | 3/18/2024 | 16:09 | 33.23 | 1094.76 | | | |
| | | Recovery | | | | 1127.99 | | | |
| | | Recovery | | | | 1127.99 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-14

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1095.66 |
| Well Depth | 22.75 |
| 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 | 1095.66 |
| Well Depth | 22.75 |
| Top Screen | 1082.91 |
| Bottom Screen | 1072.91 |
| Bottom Well | 1072.91 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 16.00 |
| Top sample | 1079.66 |
| Bottom sample | 1075.66 |
| Turbidity(NTU) | 2.11 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 3/18/2024 | 10:51 | 12.00 | 1083.66 | |

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 2.11 |
| Appendix I | Metals | 250 | 250 | | 2.11 |
| Appendix I | VOC | 120 | 120 | | 2.11 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1095.66 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 22.75 | Before purging | 3/18/2024 | 10:51 | 12.00 | 1083.66 | 3 | 1.7 | no |
| | | After purging | | | | 1095.66 | | | |
| | | Top of Screen January 1990 | | | | 1082.91 | | | |
| | | | | | | 0.75 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1072.91 | | | |
| | | Bottom of Well | 3/18/2024 | | 22.75 | 1072.91 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1095.66 | | | |
| | | Recovery | 3/18/2024 | 10:55 | 14.95 | 1080.71 | | | |
| | | Recovery | 3/18/2024 | 15:56 | 15.56 | 1080.10 | | | |
| | | Recovery | | | | 1095.66 | | | |
| | | Recovery | | | | 1095.66 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-16

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1099.36 |
| Well Depth | 40.00 |
| Capped | YES |
| Standing Water | NO |
| Litter | NO |
| Level Tape | Solinst 101 |
| NTU Meter | Hach 2100P |
| No-Purge Equipment - | Solinst 429 |
| Purge Equipment - | Waterra |

**NO PURGE METHOD**

| | |
|---|---|
| TOC | 1099.36 |
| Well Depth | 40.00 |
| Top Screen | 1069.36 |
| Bottom Screen | 1059.66 |
| Bottom Well | 1059.36 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 34.00 |
| Top sample | 1065.36 |
| Bottom sample | 1061.36 |
| Turbidity(NTU) | 10.60 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 3/18/2024 | 10:14 | 11.95 | 1087.41 | |

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 10.60 |
| Appendix I | Metals | 250 | 250 | | 10.60 |
| Appendix I | VOC | 120 | 120 | | 10.60 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1099.36 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 40.00 | Before purging | 3/18/2024 | 10:14 | 11.95 | 1087.41 | 3 | 0.7 | no |
| | | After purging | | | | 1099.36 | | | |
| | | Top of Screen January 1990 | | | | 1069.36 | | | |
| | | | | | | 18.05 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1059.66 | | | |
| | | Bottom of Well | 3/18/2024 | | 40.00 | 1059.36 | | | |
| | | | | | | -0.30 | feet sedimentation | | |
| | | Before Sampling | | | | 1099.36 | | | |
| | | Recovery | 3/18/2024 | 10:18 | 16.20 | 1083.16 | | | |
| | | Recovery | 3/18/2024 | 15:53 | 11.78 | 1087.58 | | | |
| | | Recovery | | | | 1099.36 | | | |
| | | Recovery | | | | 1099.36 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-17

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1159.5 |
| Well Depth | 47.50 |
| 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 | 1159.5 |
| Well Depth | 47.50 |
| Top Screen | 1122.00 |
| Bottom Screen | 1112.00 |
| Bottom Well | 1112.00 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 40.00 |
| Top sample | 1119.50 |
| Bottom sample | 1115.50 |
| Turbidity(NTU) | 6.00 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 3/18/2024 | 9:08 | 18.28 | 1141.22 | |

**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 | | 6.00 |
| Appendix I | Metals | 250 | 250 | | 6.00 |
| Appendix I | VOC | 120 | 120 | | 6.00 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1159.5 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 47.50 | Before purging | 3/18/2024 | 9:08 | 18.28 | 1141.22 | 2.5 | 0.5 | no |
| | | After purging | | | | 1159.50 | | | |
| | | Top of Screen January 1990 | | | | 1122.00 | | | |
| | | | | | | 19.22 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1112.00 | | | |
| | | Bottom of Well | 3/18/2024 | | 47.50 | 1112.00 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1159.50 | | | |
| | | Recovery | 3/18/2024 | 9:13 | 31.51 | 1127.99 | | | |
| | | Recovery | 3/18/2024 | 15:43 | 18.53 | 1140.97 | | | |
| | | Recovery | | | | 1159.50 | | | |
| | | Recovery | | | | 1159.50 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-18

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1130.69 |
| Well Depth | 27.60 |
| Capped | YES |
| Standing Water | NO |
| Litter | NO |
| Level Tape | Solinst 101 |
| NTU Meter | Hach 2100P |
| No-Purge Equipment - | Solinst 429 |
| Purge Equipment - | Waterra |

**NO PURGE METHOD**

| | |
|---|---|
| TOC | 1130.69 |
| Well Depth | 27.60 |
| Top Screen | 1118.09 |
| Bottom Screen | 1103.09 |
| Bottom Well | 1103.09 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 21.00 |
| Top sample | 1109.69 |
| Bottom sample | 1105.69 |
| Turbidity(NTU) | 4.10 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 3/18/2024 | 9:52 | 19.34 | 1111.35 | |

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 4.10 |
| Appendix I | Metals | 250 | 250 | | 4.10 |
| Appendix I | VOC | 120 | 120 | | 4.10 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1130.69 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 27.60 | Before purging | 3/18/2024 | 9:52 | 19.34 | 1111.35 | 2 | 1.5 | no |
| | | After purging | | | | 1130.69 | | | |
| | | Top of Screen January 1990 | | | | 1118.09 | | | |
| | | | | | | -6.74 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1103.09 | | | |
| | | Bottom of Well | 3/18/2024 | | 27.60 | 1103.09 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1130.69 | | | |
| | | Recovery | 3/18/2024 | 9:57 | 24.74 | 1105.95 | | | |
| | | Recovery | 3/18/2024 | 15:50 | 19.37 | 1111.32 | | | |
| | | Recovery | | | | 1130.69 | | | |
| | | Recovery | | | | 1130.69 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-19

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1127.7 |
| Well Depth | 24.75 |
| 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 | 1127.7 |
| Well Depth | 24.75 |
| Top Screen | 1112.95 |
| Bottom Screen | 1102.95 |
| Bottom Well | 1102.95 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 19.00 |
| Top sample | 1108.70 |
| Bottom sample | 1104.70 |
| Turbidity(NTU) | 42.10 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 3/18/2024 | 11:27 | 19.27 | 1108.43 | |

**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 | | 42.10 |
| Appendix I | Metals | 250 | 250 | | 42.10 |
| Appendix I | VOC | 120 | 120 | | 42.10 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1127.7 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 24.75 | Before purging | 3/18/2024 | 11:27 | 19.27 | 1108.43 | 1 | 1.1 | no |
| | | After purging | | | | 1127.70 | | | |
| | | Top of Screen January 1990 | | | | 1112.95 | | | |
| | | | | | | -4.52 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1102.95 | | | |
| | | Bottom of Well | 3/18/2024 | | 24.75 | 1102.95 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1127.70 | | | |
| | | Recovery | 3/18/2024 | 11:32 | 21.60 | 1106.10 | | | |
| | | Recovery | 3/18/2024 | 16:11 | 19.25 | 1108.45 | | | |
| | | Recovery | | | | 1127.70 | | | |
| | | Recovery | | | | 1127.70 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-20

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1122.96 |
| Well Depth | 25.30 |
| 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 | 1122.96 |
| Well Depth | 25.30 |
| Top Screen | 1107.66 |
| Bottom Screen | 1097.66 |
| Bottom Well | 1097.66 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 19.00 |
| Top sample | 1103.96 |
| Bottom sample | 1099.96 |
| Turbidity(NTU) | 13.30 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 3/18/2024 | 12:07 | 18.64 | 1104.32 | |

**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 | | 13.30 |
| Appendix I | Metals | 250 | 250 | | 13.30 |
| Appendix I | VOC | 120 | 120 | | 13.30 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1122.96 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 25.30 | Before purging | 3/18/2024 | 12:07 | 18.64 | 1104.32 | 1.5 | 1.4 | no |
| | | After purging | | | | 1122.96 | | | |
| | | Top of Screen January 1990 | | | | 1107.66 | | | |
| | | | | | | -3.34 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1097.66 | | | |
| | | Bottom of Well | 3/18/2024 | | 25.30 | 1097.66 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1122.96 | | | |
| | | Recovery | 3/18/2024 | 12:11 | 23.18 | 1099.78 | | | |
| | | Recovery | 3/18/2024 | 16:16 | 18.65 | 1104.31 | | | |
| | | Recovery | | | | 1122.96 | | | |
| | | Recovery | | | | 1122.96 | | | |

**IDNR Form 542-1324**

| | Date | Time | Type | Flowing | Quantity | | Discolored | Odor | Litter |
|---|---|---|---|---|---|---|---|---|---|
| GWD-1 | 3/18/2024 | 10:34 | Underdrain tile outlet | yes | 250 mL/10 sec | | No | No | No |
| | | | | | | | | | Turbidity (NTU) |
| | | | | | | | | | 6.34 |

**PAGE COUNTY SANITARY LANDFILL**
**PERMIT # 73-SDP-01-75P**

8/1/2024 Sampled by: Todd Whipple Weather Conditions: Sunny, calm, 80 degrees

**IDNR Form 542-1322**

**Monitoring Well:** MW-53

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1107.26 |
| Well Depth | 30.40 |
| 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 | 1107.26 |
| Well Depth | 30.40 |
| Top Screen | 1087.31 |
| Bottom Screen | 1077.31 |
| Bottom Well | 1076.86 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 24.00 |
| Top sample | 1083.26 |
| Bottom sample | 1079.26 |
| Turbidity(NTU) | 4.29 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 8/1/2024 | 12:19 | 12.12 | 1095.14 | |

Sample before waste placement in Phase W-1

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 4.29 |
| Appendix I | Metals | 250 | 250 | | 4.29 |
| Appendix I | VOC | 120 | 120 | | 4.29 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1107.26 | | | | | | | | |
| Well Depth | 30.40 | Before purging | 8/1/2024 | 12:19 | 12.12 | 1095.14 | | 0.0 | |
| | | After purging | | | | 1107.26 | | | |
| | | Top of Screen January 1990 | | | | 1087.31 | | | |
| | | | | | | 7.83 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1077.31 | | | |
| | | Bottom of Well | 8/1/2024 | | 30.40 | 1076.86 | | | |
| | | | | | | -0.45 | feet sedimentation | | |
| | | Before Sampling | | | | 1107.26 | | | |
| | | Recovery | | | | 1107.26 | | | |
| | | Recovery | | | | 1107.26 | | | |
| | | Recovery | | | | 1107.26 | | | |
| | | Recovery | | | | 1107.26 | | | |

**IDNR Form 542-1324**

| | Date | Time | Type | Flowing | Quantity | Discolored | Odor | Litter |
|---|---|---|---|---|---|---|---|---|
| GWD-3 | 8/1/2024 | 12:42 | Underdrain tile outlet | yes | 250 mL/20 sec | No | No | No |
| | | | | | | | | Turbidity (NTU) |
| | Sample before waste placement in Phase W-1 | | | | | | | 2.13 |

| | Date | Time | Type | Flowing | Quantity | Discolored | Odor | Litter |
|---|---|---|---|---|---|---|---|---|
| GWD-4 | 8/1/2024 | 12:52 | Underdrain tile outlet | yes | 250 mL/10 sec | No | No | No |
| | | | | | | | | Turbidity (NTU) |
| | Sample before waste placement in Phase W-1 | | | | | | | 1.07 |

**PAGE COUNTY SANITARY LANDFILL**
**PERMIT # 73-SDP-01-75P**

9/25/2024 Sampled by: Todd Whipple Weather Conditions: Sunny, calm, 80 degrees

**IDNR Form 542-1322**

**Monitoring Well:** MW-1D

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1185.49 |
| Well Depth | 34.55 |
| 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 | 1185.49 |
| Well Depth | 34.55 |
| Top Screen | 1160.94 |
| Bottom Screen | 1150.94 |
| Bottom Well | 1150.94 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 28.00 |
| Top sample | 1157.49 |
| Bottom sample | 1153.49 |
| Turbidity(NTU) | 2.37 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | 17:13 | 20.19 | 1165.3 | |

**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 | | 2.37 |
| Appendix I | Metals | 250 | 250 | | 2.37 |
| Appendix I | VOC | 120 | 120 | | 2.37 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1185.49 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 34.55 | Before purging | 9/25/2024 | 17:13 | 20.19 | 1165.30 | | 0.0 | |
| | | After purging | | | | 1185.49 | | | |
| | | Top of Screen January 1990 | | | | 1160.94 | | | |
| | | | | | | 24.55 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1150.94 | | | |
| | | Bottom of Well | 9/25/2024 | | 34.55 | 1150.94 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1185.49 | | | |
| | | Recovery | | | | 1185.49 | | | |
| | | Recovery | | | | 1185.49 | | | |
| | | Recovery | | | | 1185.49 | | | |
| | | Recovery | | | | 1185.49 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-3

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1145.59 |
| Well Depth | 39.75 |
| 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 | 1145.59 |
| Well Depth | 39.75 |
| Top Screen | 1115.84 |
| Bottom Screen | 1105.84 |
| Bottom Well | 1105.84 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 33.00 |
| Top sample | 1112.59 |
| Bottom sample | 1108.59 |
| Turbidity(NTU) | 1.67 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | 16:45 | 21.51 | 1124.08 | |

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 1.67 |
| Appendix I | Metals | 250 | 250 | | 1.67 |
| Appendix I | VOC | 120 | 120 | | 1.67 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1145.59 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 39.75 | Before purging | 9/25/2024 | 16:45 | 21.51 | 1124.08 | | 0.0 | |
| | | After purging | | | | 1145.59 | | | |
| | | Top of Screen January 1990 | | | | 1115.84 | | | |
| | | | | | | 8.24 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1105.84 | | | |
| | | Bottom of Well | 9/25/2024 | | 39.75 | 1105.84 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1145.59 | | | |
| | | Recovery | | | | 1145.59 | | | |
| | | Recovery | | | | 1145.59 | | | |
| | | Recovery | | | | 1145.59 | | | |
| | | Recovery | | | | 1145.59 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-7

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1118.81 |
| Well Depth | 31.82 |
| Capped | YES |
| Standing Water | NO |
| Litter | NO |
| Level Tape | Solinst 101 |
| NTU Meter | Hach 2100P |
| No-Purge Equipment - | Solinst 429 |
| Purge Equipment - | Waterra |

**NO PURGE METHOD**

| | |
|---|---|
| TOC | 1118.81 |
| Well Depth | 31.82 |
| Top Screen | 1097.01 |
| Bottom Screen | 1087.01 |
| Bottom Well | 1086.99 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 26.00 |
| Top sample | 1092.81 |
| Bottom sample | 1088.81 |
| Turbidity(NTU) | 17.88 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | 14:59 | 20.29 | 1098.52 | |

**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 | | 17.88 |
| Appendix I | Metals | 250 | 250 | | 17.88 |
| Appendix I | VOC | 120 | 120 | | 17.88 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1118.81 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 31.82 | Before purging | 9/25/2024 | 14:59 | 20.29 | 1098.52 | | 0.0 | |
| | | After purging | | | | 1118.81 | | | |
| | | Top of Screen January 1990 | | | | 1097.01 | | | |
| | | | | | | 1.51 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1087.01 | | | |
| | | Bottom of Well | 9/25/2024 | | 31.82 | 1086.99 | | | |
| | | | | | | -0.02 | feet sedimentation | | |
| | | Before Sampling | | | | 1118.81 | | | |
| | | Recovery | | | | 1118.81 | | | |
| | | Recovery | | | | 1118.81 | | | |
| | | Recovery | | | | 1118.81 | | | |
| | | Recovery | | | | 1118.81 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-10
Background Well

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1151.88 |
| Well Depth | 35.40 |
| 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 | 1151.88 |
| Well Depth | 35.40 |
| Top Screen | 1126.48 |
| Bottom Screen | 1116.48 |
| Bottom Well | 1116.48 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 33.00 |
| Top sample | 1118.88 |
| Bottom sample | 1114.88 |
| Turbidity(NTU) | 2.73 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | 18:20 | 32.09 | 1119.79 | |

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 2.73 |
| Appendix I | Metals | 250 | 250 | | 2.73 |
| Appendix I | VOC | 120 | 120 | | 2.73 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1151.88 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 35.40 | Before purging | 9/25/2024 | 18:20 | 32.09 | 1119.79 | | 0.0 | |
| | | After purging | | | | 1151.88 | | | |
| | | Top of Screen January 1990 | | | | 1126.48 | | | |
| | | | | | | -6.69 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1116.48 | | | |
| | | Bottom of Well | 9/25/2024 | | 35.40 | 1116.48 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1151.88 | | | |
| | | Recovery | | | | 1151.88 | | | |
| | | Recovery | | | | 1151.88 | | | |
| | | Recovery | | | | 1151.88 | | | |
| | | Recovery | | | | 1151.88 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-44
Background Well

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1166.36 |
| Well Depth | 47.18 |
| 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 | 1166.36 |
| Well Depth | 47.18 |
| Top Screen | 1129.18 |
| Bottom Screen | 1119.18 |
| Bottom Well | 1119.18 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | |
| Top sample | 1166.36 |
| Bottom sample | 1162.36 |
| Turbidity(NTU) | |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | | | 1166.36 | see 11-25-24 |

**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 | | 0.00 |
| Appendix I | Metals | 250 | 250 | | 0.00 |
| Appendix I | VOC | 120 | 120 | | 0.00 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1166.36 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 47.18 | Before purging | 9/25/2024 | 0:00 | 0.00 | 1166.36 | | 0.0 | |
| | | After purging | | | | 1166.36 | | | |
| | | Top of Screen January 1990 | | | | 1129.18 | | | |
| | | | | | | 37.18 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1119.18 | | | |
| | | Bottom of Well | 9/25/2024 | | 47.18 | 1119.18 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1166.36 | | | |
| | | Recovery | | | | 1166.36 | | | |
| | | Recovery | | | | 1166.36 | | | |
| | | Recovery | | | | 1166.36 | | | |
| | | Recovery | | | | 1166.36 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-13

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1127.99 |
| Well Depth | 42.88 |
| Capped | YES |
| Standing Water | NO |
| Litter | NO |
| Level Tape | Solinst 101 |
| NTU Meter | Hach 2100P |
| No-Purge Equipment - | Solinst 429 |
| Purge Equipment - | Waterra |

**NO PURGE METHOD**

| | |
|---|---|
| TOC | 1127.99 |
| Well Depth | 42.88 |
| Top Screen | 1095.11 |
| Bottom Screen | 1085.11 |
| Bottom Well | 1085.11 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 37.00 |
| Top sample | 1090.99 |
| Bottom sample | 1086.99 |
| Turbidity(NTU) | 2.46 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | 15:15 | 17.72 | 1110.27 | |

**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 | | 2.46 |
| Appendix I | Metals | 250 | 250 | | 2.46 |
| Appendix I | VOC | 120 | 120 | | 2.46 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1127.99 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 42.88 | Before purging | 9/25/2024 | 15:15 | 17.72 | 1110.27 | | 0.0 | |
| | | After purging | | | | 1127.99 | | | |
| | | Top of Screen January 1990 | | | | 1095.11 | | | |
| | | | | | | 15.16 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1085.11 | | | |
| | | Bottom of Well | 9/25/2024 | | 42.88 | 1085.11 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1127.99 | | | |
| | | Recovery | | | | 1127.99 | | | |
| | | Recovery | | | | 1127.99 | | | |
| | | Recovery | | | | 1127.99 | | | |
| | | Recovery | | | | 1127.99 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-14

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1095.66 |
| Well Depth | 22.75 |
| 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 | 1095.66 |
| Well Depth | 22.75 |
| Top Screen | 1082.91 |
| Bottom Screen | 1072.91 |
| Bottom Well | 1072.91 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 17.00 |
| Top sample | 1078.66 |
| Bottom sample | 1074.66 |
| Turbidity(NTU) | 4.24 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | 15:30 | 15.11 | 1080.55 | |

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 4.24 |
| Appendix I | Metals | 250 | 250 | | 4.24 |
| Appendix I | VOC | 120 | 120 | | 4.24 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1095.66 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 22.75 | Before purging | 9/25/2024 | 15:30 | 15.11 | 1080.55 | | 0.0 | |
| | | After purging | | | | 1095.66 | | | |
| | | Top of Screen January 1990 | | | | 1082.91 | | | |
| | | | | | | -2.36 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1072.91 | | | |
| | | Bottom of Well | 9/25/2024 | | 22.75 | 1072.91 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1095.66 | | | |
| | | Recovery | | | | 1095.66 | | | |
| | | Recovery | | | | 1095.66 | | | |
| | | Recovery | | | | 1095.66 | | | |
| | | Recovery | | | | 1095.66 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-16

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1099.36 |
| Well Depth | 40.00 |
| Capped | YES |
| Standing Water | NO |
| Litter | NO |
| Level Tape | Solinst 101 |
| NTU Meter | Hach 2100P |
| No-Purge Equipment - | Solinst 429 |
| Purge Equipment - | Waterra |

**NO PURGE METHOD**

| | |
|---|---|
| TOC | 1099.36 |
| Well Depth | 40.00 |
| Top Screen | 1069.36 |
| Bottom Screen | 1059.66 |
| Bottom Well | 1059.36 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 35.00 |
| Top sample | 1064.36 |
| Bottom sample | 1060.36 |
| Turbidity(NTU) | 10.14 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | 15:53 | 13.68 | 1085.68 | |

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 10.14 |
| Appendix I | Metals | 250 | 250 | | 10.14 |
| Appendix I | VOC | 120 | 120 | | 10.14 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1099.36 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 40.00 | Before purging | 9/25/2024 | 15:53 | 13.68 | 1085.68 | | 0.0 | |
| | | After purging | | | | 1099.36 | | | |
| | | Top of Screen January 1990 | | | | 1069.36 | | | |
| | | | | | | 16.32 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1059.66 | | | |
| | | Bottom of Well | 9/25/2024 | | 40.00 | 1059.36 | | | |
| | | | | | | -0.30 | feet sedimentation | | |
| | | Before Sampling | | | | 1099.36 | | | |
| | | Recovery | | | | 1099.36 | | | |
| | | Recovery | | | | 1099.36 | | | |
| | | Recovery | | | | 1099.36 | | | |
| | | Recovery | | | | 1099.36 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-17

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1159.5 |
| Well Depth | 47.50 |
| 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 | 1159.5 |
| Well Depth | 47.50 |
| Top Screen | 1122.00 |
| Bottom Screen | 1112.00 |
| Bottom Well | 1112.00 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 42.00 |
| Top sample | 1117.50 |
| Bottom sample | 1113.50 |
| Turbidity(NTU) | 2.41 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | 16:57 | 18.27 | 1141.23 | |

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 2.41 |
| Appendix I | Metals | 250 | 250 | | 2.41 |
| Appendix I | VOC | 120 | 120 | | 2.41 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1159.5 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 47.50 | Before purging | 9/25/2024 | 16:57 | 18.27 | 1141.23 | | 0.0 | |
| | | After purging | | | | 1159.50 | | | |
| | | Top of Screen January 1990 | | | | 1122.00 | | | |
| | | | | | | 19.23 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1112.00 | | | |
| | | Bottom of Well | 9/25/2024 | | 47.50 | 1112.00 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1159.50 | | | |
| | | Recovery | | | | 1159.50 | | | |
| | | Recovery | | | | 1159.50 | | | |
| | | Recovery | | | | 1159.50 | | | |
| | | Recovery | | | | 1159.50 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-18

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1130.69 |
| Well Depth | 27.60 |
| Capped | YES |
| Standing Water | NO |
| Litter | NO |
| Level Tape | Solinst 101 |
| NTU Meter | Hach 2100P |
| No-Purge Equipment - | Solinst 429 |
| Purge Equipment - | Waterra |

**NO PURGE METHOD**

| | |
|---|---|
| TOC | 1130.69 |
| Well Depth | 27.60 |
| Top Screen | 1118.09 |
| Bottom Screen | 1103.09 |
| Bottom Well | 1103.09 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 22.00 |
| Top sample | 1108.69 |
| Bottom sample | 1104.69 |
| Turbidity(NTU) | 2.28 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | 16:30 | 17.97 | 1112.72 | |

**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 | | 2.28 |
| Appendix I | Metals | 250 | 250 | | 2.28 |
| Appendix I | VOC | 120 | 120 | | 2.28 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1130.69 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 27.60 | Before purging | 9/25/2024 | 16:30 | 17.97 | 1112.72 | | 0.0 | |
| | | After purging | | | | 1130.69 | | | |
| | | Top of Screen January 1990 | | | | 1118.09 | | | |
| | | | | | | -5.37 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1103.09 | | | |
| | | Bottom of Well | 9/25/2024 | | 27.60 | 1103.09 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1130.69 | | | |
| | | Recovery | | | | 1130.69 | | | |
| | | Recovery | | | | 1130.69 | | | |
| | | Recovery | | | | 1130.69 | | | |
| | | Recovery | | | | 1130.69 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-19R

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1131.46 |
| Well Depth | 29.65 |
| 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 | 1131.46 |
| Well Depth | 29.65 |
| Top Screen | 1112.26 |
| Bottom Screen | 1102.26 |
| Bottom Well | 1101.81 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | |
| Top sample | 1131.46 |
| Bottom sample | 1127.46 |
| Turbidity(NTU) | |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | | 20.25 | 1111.21 | see 11-25-24 |

**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 | | 0.00 |
| Appendix I | Metals | 250 | 250 | | 0.00 |
| Appendix I | VOC | 120 | 120 | | 0.00 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1131.46 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 29.65 | Before purging | 9/25/2024 | 0:00 | 20.25 | 1111.21 | | 0.0 | |
| | | After purging | | | | 1131.46 | | | |
| | | Top of Screen January 1990 | | | | 1112.26 | | | |
| | | | | | | -1.05 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1102.26 | | | |
| | | Bottom of Well | 9/25/2024 | | 24.75 | 1106.71 | | | |
| | | | | | | 4.45 | feet sedimentation | | |
| | | Before Sampling | | | | 1131.46 | | | |
| | | Recovery | | | | 1131.46 | | | |
| | | Recovery | | | | 1131.46 | | | |
| | | Recovery | | | | 1131.46 | | | |
| | | Recovery | | | | 1131.46 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-20

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1122.96 |
| Well Depth | 25.30 |
| 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 | 1122.96 |
| Well Depth | 25.30 |
| Top Screen | 1107.66 |
| Bottom Screen | 1097.66 |
| Bottom Well | 1097.66 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 19.00 |
| Top sample | 1103.96 |
| Bottom sample | 1099.96 |
| Turbidity(NTU) | 2.88 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | 14:45 | 18.61 | 1104.35 | |

**ANALYTES, CONTAINERS, AND VOLUMES**

| Analyte | | Required Volume (mL) | Volume Collected No-Purge (mL) | Volume Collected Purge & Sample (mL) | Turbidity this Container (NTU) |
|---|---|---|---|---|---|
| All | Field NTU | 10 | 10 | | 2.88 |
| Appendix I | Metals | 250 | 250 | | 2.88 |
| Appendix I | VOC | 120 | 120 | | 2.88 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1122.96 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 25.30 | Before purging | 9/25/2024 | 14:45 | 18.61 | 1104.35 | | 0.0 | |
| | | After purging | | | | 1122.96 | | | |
| | | Top of Screen January 1990 | | | | 1107.66 | | | |
| | | | | | | -3.31 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1097.66 | | | |
| | | Bottom of Well | 9/25/2024 | | 25.30 | 1097.66 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1122.96 | | | |
| | | Recovery | | | | 1122.96 | | | |
| | | Recovery | | | | 1122.96 | | | |
| | | Recovery | | | | 1122.96 | | | |
| | | Recovery | | | | 1122.96 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-53

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1107.26 |
| Well Depth | 30.40 |
| 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 | 1107.26 |
| Well Depth | 30.40 |
| Top Screen | 1087.31 |
| Bottom Screen | 1077.31 |
| Bottom Well | 1076.86 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 25.00 |
| Top sample | 1082.26 |
| Bottom sample | 1078.26 |
| Turbidity(NTU) | 2.08 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 9/25/2024 | 17:30 | 11.85 | 1095.41 | |

**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 | | 2.08 |
| Appendix I | Metals | 250 | 250 | | 2.08 |
| Appendix I | VOC | 120 | 120 | | 2.08 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1107.26 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 30.40 | Before purging | 9/25/2024 | 17:30 | 11.85 | 1095.41 | | 0.0 | |
| | | After purging | | | | 1107.26 | | | |
| | | Top of Screen January 1990 | | | | 1087.31 | | | |
| | | | | | | 8.10 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1077.31 | | | |
| | | Bottom of Well | 9/25/2024 | | 30.40 | 1076.86 | | | |
| | | | | | | -0.45 | feet sedimentation | | |
| | | Before Sampling | | | | 1107.26 | | | |
| | | Recovery | | | | 1107.26 | | | |
| | | Recovery | | | | 1107.26 | | | |
| | | Recovery | | | | 1107.26 | | | |
| | | Recovery | | | | 1107.26 | | | |

**IDNR Form 542-1324**

| | Date | Time | Type | Flowing | Quantity | Discolored | Odor | Litter |
|---|---|---|---|---|---|---|---|---|
| GWD-1 | 9/25/2024 | | Underdrain tile outlet | not found | | No | No | No |
| | | | | | | | | Turbidity (NTU) |
| | | | | | | | | |

| | Date | Time | Type | Flowing | Quantity | Discolored | Odor | Litter |
|---|---|---|---|---|---|---|---|---|
| GWD-2 | 9/25/2024 | | Underdrain tile outlet | dry | dry | No | No | No |
| | | | | | | | | Turbidity (NTU) |
| | | | | | | | | |

| | Date | Time | Type | Flowing | Quantity | Discolored | Odor | Litter |
|---|---|---|---|---|---|---|---|---|
| GWD-3 | 9/25/2024 | 18:06 | Underdrain tile outlet | yes | 250 mL/9 sec | No | No | No |
| | | | | | | | | Turbidity (NTU) |
| | | | | | | | | 2.03 |

| | Date | Time | Type | Flowing | Quantity | Discolored | Odor | Litter |
|---|---|---|---|---|---|---|---|---|
| GWD-4 | 9/25/2024 | 17:59 | Underdrain tile outlet | yes | 250 mL/30 sec | No | No | No |
| | | | | | | | | Turbidity (NTU) |
| | | | | | | | | 2.38 |

**PAGE COUNTY SANITARY LANDFILL**
**PERMIT # 73-SDP-01-75P**

11/25/2024 Sampled by: Glenn Hunter Weather Conditions: Sunny, windy, 29 degrees

**IDNR Form 542-1322**

**Monitoring Well:** MW-44
Background Well

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1166.36 |
| Well Depth | 47.18 |
| 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 | 1166.36 |
| Well Depth | 47.18 |
| Top Screen | 1129.18 |
| Bottom Screen | 1119.18 |
| Bottom Well | 1119.18 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 41.00 |
| Top sample | 1125.36 |
| Bottom sample | 1121.36 |
| Turbidity(NTU) | 2.53 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 11/25/2024 | 10:54 | 13.93 | 1152.43 | |

**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 | | 2.53 |
| Appendix I | Metals | 250 | 250 | | 2.53 |
| Appendix I | VOC | 120 | 120 | | 2.53 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1166.36 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 47.18 | Before purging | 11/25/2024 | 10:54 | 13.93 | 1152.43 | | 0.0 | |
| | | After purging | | | | 1166.36 | | | |
| | | Top of Screen January 1990 | | | | 1129.18 | | | |
| | | | | | | 23.25 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1119.18 | | | |
| | | Bottom of Well | 11/25/2024 | | 47.18 | 1119.18 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1166.36 | | | |
| | | Recovery | | | | 1166.36 | | | |
| | | Recovery | | | | 1166.36 | | | |
| | | Recovery | | | | 1166.36 | | | |
| | | Recovery | | | | 1166.36 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-14

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1095.66 |
| Well Depth | 22.75 |
| 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 | 1095.66 |
| Well Depth | 22.75 |
| Top Screen | 1082.91 |
| Bottom Screen | 1072.91 |
| Bottom Well | 1072.91 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 16.00 |
| Top sample | 1079.66 |
| Bottom sample | 1075.66 |
| Turbidity(NTU) | 1.09 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 11/25/2024 | 11:45 | 11.34 | 1084.32 | |

**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 | | 1.09 |
| Appendix I | Metals | 250 | 250 | | 1.09 |
| Appendix I | VOC | 120 | 120 | | 1.09 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1095.66 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 22.75 | Before purging | 11/25/2024 | 11:45 | 11.34 | 1084.32 | | 0.0 | |
| | | After purging | | | | 1095.66 | | | |
| | | Top of Screen January 1990 | | | | 1082.91 | | | |
| | | | | | | 1.41 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1072.91 | | | |
| | | Bottom of Well | 11/25/2024 | | 22.75 | 1072.91 | | | |
| | | | | | | 0.00 | feet sedimentation | | |
| | | Before Sampling | | | | 1095.66 | | | |
| | | Recovery | | | | 1095.66 | | | |
| | | Recovery | | | | 1095.66 | | | |
| | | Recovery | | | | 1095.66 | | | |
| | | Recovery | | | | 1095.66 | | | |

**IDNR Form 542-1322**

**Monitoring Well:** MW-19R

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

**GENERAL INFORMATION**

| | |
|---|---|
| TOC | 1131.46 |
| Well Depth | 29.65 |
| 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 | 1131.46 |
| Well Depth | 29.65 |
| Top Screen | 1112.26 |
| Bottom Screen | 1102.26 |
| Bottom Well | 1101.81 |
| Sampler Length (ft) | 4.00 |
| Sampler Volume (mL) | 440.00 |
| Feet cordage | 20.00 |
| Top sample | 1111.46 |
| Bottom sample | 1107.46 |
| Turbidity(NTU) | 0.79 |

| Date | Time | Water Level | Water Elevation | Notes |
|---|---|---|---|---|
| 11/25/2024 | 12:02 | 19.87 | 1111.59 | |

**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 | | 0.79 |
| Appendix I | Metals | 250 | 250 | | 0.79 |
| Appendix I | VOC | 120 | 120 | | 0.79 |
| Full Appendix II | 10 more containers | 5620 | | | |
| Bis(2-EHP) | 1 quart | 946 | | | |
| Sulfide | Sulfide | 250 | | | |
| Supplemental | Minerals | 750 | 0 | | |
| Total | | | 380 | 0 | |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TOC | 1131.46 | 2" dia. | Date | Time | Depth | Elevation | Gallons | # of Vol. | Purged Dry? |
| Well Depth | 29.65 | Before purging | 11/25/2024 | 12:02 | 19.87 | 1111.59 | | 0.0 | |
| | | After purging | | | | 1131.46 | | | |
| | | Top of Screen January 1990 | | | | 1112.26 | | | |
| | | | | | | -0.67 | feet above (+) or below (-) top screen | | |
| | | Bottom of Well January 1990 | | | | 1102.26 | | | |
| | | Bottom of Well | 11/25/2024 | | 24.75 | 1106.71 | | | |
| | | | | | | 4.45 | feet sedimentation | | |
| | | Before Sampling | | | | 1131.46 | | | |
| | | Recovery | | | | 1131.46 | | | |
| | | Recovery | | | | 1131.46 | | | |
| | | Recovery | | | | 1131.46 | | | |
| | | Recovery | | | | 1131.46 | | | |

**IDNR Form 542-1324**

| | Date | Time | Type | Flowing | Quantity | Discolored | Odor | Litter |
|---|---|---|---|---|---|---|---|---|
| GWD-1 | 11/25/2024 | 11:33 | Underdrain tile outlet | yes | 1 gal/min | No | No | No |
| | | | | | | | | Turbidity (NTU) |
| | | | | | | | | 15.3 |

| | Date | Time | Type | Flowing | Quantity | Discolored | Odor | Litter |
|---|---|---|---|---|---|---|---|---|
| GWD-4 | 11/25/2024 | 12:37 | Underdrain tile outlet | yes | 250 mL/00 sec | No | No | No |
| | | | | | | | | Turbidity (NTU) |
| | | | | | | | | 1.83 |

# Appendix B

# Statistical Report

# Appendix B.1 –1st Statistical Evaluation

# GROUND WATER STATISTICS

# FOR THE

# PAGE COUNTY SANITARY LANDFILL

**First Semi-Annual Monitoring Event in 2024**

Prepared for:
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**April 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 Page County Sanitary Landfill near Clarinda in Page County, Iowa. The statistical plan was designed to detect a release from the facility at the earliest indication so that it is protective of human health and the environment. Interwell statistics were used for comparison of the current data to background data at Page County Sanitary Landfill. The statistical plan conforms with IAC 567, Chapter 113.10, and the USEPA statistical guidance document ("*Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance"*, March 2009).

### Ground Water Monitoring Program

The groundwater monitoring network for Page County Sanitary Landfill (PCSL) includes upgradient wells MW-1 and MW-17 and downgradient wells MW-3, MW-7, MW-10, MW-11, MW-13, MW-14, MW-16, MW-18, MW-19, MW-20 and GWD-1. 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 events 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 interwell method was applied to the Page County Landfill data using the DUMPStat® statistical program. DUMPStat® is a program for the statistical analysis of groundwater monitoring data using methods described in "Statistical Methods for Groundwater Monitoring" by Dr. Robert D. Gibbons. DUMPStat is completely consistent with all USEPA regulations and guidance and the ASTM D6312-98 guidance.

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 can be used. If the detection frequency is 0% after thirteen samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit.

### Results of the Interwell Statistics

The background data used in this statistical analysis includes the ground water data collected from ground water wells MW-1, MW-17, and MW-44 during the period from September 2014, when the sampling protocol changed, through the current data. Monitoring well MW-44 was recently added as an upgradient sample point. A summary of the background data from monitoring wells MW-1, MW-17, and MW-44, 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-1D, MW-3, MW-7, MW-10, MW-13, MW-14, MW-16, MW-18, MW-20, and GWD-1 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.

**Trace Metal Prediction Limit Exceedances during the First Semi-Annual Monitoring Event in 2024**

| Well | Trace Metal Detected | Result, µg/L | Prediction Limit, µg/L | Prediction Limit Type | Verified/ Awaiting verification |
|---|---|---|---|---|---|
| MW-16 | Arsenic | 20.4 | 5.6000 | Nonparametric | Awaiting verification |
| MW-18 | Arsenic | 23.7 | 5.6000 | Nonparametric | Verified |
| MW-1D | Barium | 784 | 776.0663 | Normal | Awaiting verification |
| MW-20 | Arsenic | 112 | 5.6000 | Nonparametric | Verified |
| | Barium | 2110 | 776.0663 | Normal | Verified |

The detection frequencies of the parameters in the up and down gradient monitoring wells are summarized in Table 3. Table 4 summarizes the results of the Shapiro-Wilk test. Table 5 is a summary of the statistics and prediction limits determined for the metals. Time series graphs of each of the parameters at each well with the corresponding prediction limits are attached.

A statistical power curve indicates the expected false assessments for the site as a whole. The false positive rate for interwell analyses is the percentage of failures when the upgradient versus downgradient true mean difference equals zero. False negative rate indicates the chance of missing contamination at a single well for a single constituent. The statistical power is a function of the number of wells included, the number of constituents compared, the detection frequencies, and the data distributions involved. For interwell analysis, the site-wide false positive rate is 3% and the test becomes sensitive to 3 standard deviation unit increases over background.

The past and current metals exceedances were evaluated against the ground water protection standards (GWPS) using confidence limits calculated in accordance with the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance, USEPA, March 2009 (Attachment C). The analysis was conducted to evaluate whether verified concentrations are significantly above the water quality standard. 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-18 (10.473 µg/L) exceeds the USEPA MCL of 10 µg/L.

The 95% LCL for arsenic at MW-20 (80.290 µg/L) exceeds the USEPA MCL of 10 µg/L.

The 95% LCL for cobalt at MW-20 (9.060 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, though the current concentration (9.7 µg/L) is below the site prediction limit of 30.6 µg/L.

The 95% LCL for cobalt at MW-7 (8.436 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, though the current concentration (8.7 µg/L) is below the site prediction limit of 30.6 µg/L.

The remainder of the calculated 95% LCLs are below the respective GWPS.

**Volatile Organic Compounds**

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

The 47 volatile organic compounds (VOCs) included in Appendix A were compared to site-specific limits in lieu of statistical comparisons. VOCs detected in the ground water at Page County Sanitary Landfill during the first semi-annual monitoring event in 2024 are summarized in the table below.

**VOCs detected at Page County Landfill 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-16 | 1,1-Dichloroethane | 1.0 | 1 | Awaiting Verification | 140[b] |
| | 1,4-Dichlorobenzene | 1.8 | 1 | Awaiting Verification | 75[a] |
| | Benzene | 1.5 | 1 | Awaiting Verification | 5[a] |
| | Chlorobenzene | 5.2 | 1 | Awaiting Verification | 100[a] |
| MW-1D | Benzene | 1.3 | 1 | Verified | 5[a] |
| | Chlorobenzene | 1.5 | 1 | Awaiting Verification | 100[a] |
| | Chloroethane | 1.1 | 1 | Awaiting Verification | 2800[b] |
| MW-20 | Benzene | 2.2 | 1 | Verified | 5[a] |
| | Chlorobenzene | 1.2 | 1 | Verified | 100[a] |
| | Chloroethane | 1.2 | 1 | Verified | 2800[b] |

a - USEPA MCL
b – Iowa Statewide Standard

Many of the VOCs detected have been detected previously, but some not since 2022 monitoring. Because many of these VOCs were detected at these wells during the previous monitoring event at similar concentrations, these current detections are statistically significant.

The VOCs detected are typically associated with landfill gas migration. The detections are low-level and do not exceed ground water quality standards. Historical VOC detections in the ground water are summarized in Attachment D. The verified VOC detections were evaluated against the GWPS using confidence limits. The results are shown in Attachment E. The 95% LCLs for each of the verified VOC detections are below ground water quality standards.

**Attachment A**

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

## Table 1

## Analytical Data Summary for 3/18/2024

| Constituents | Units | GWD-1 | MW-10 | MW-13 | MW-14 | MW-16 | MW-17 | MW-18 | MW-1D | MW-20 | MW-3 | MW-44 | MW-7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,1-trichloroethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2-trichloroethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethane | ug/L | <1 | <1 | <1 | <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 | <1 |
| 1,2,3-trichloropropane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dibromo-3-chloropropane | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-dibromoethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichlorobenzene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloroethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloropropane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,4-dichlorobenzene | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | 1.8 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 2-butanone (mek) | ug/L | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| 2-hexanone (mbk) | ug/L | <5 | <5 | <5 | <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 | <5 | <5 | <5 |
| Acetone | ug/L | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Acrylonitrile | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Antimony, total | ug/L | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Arsenic, total | ug/L | <4.0 | <4.0 | <4.0 | <4.0 | 20.4 | <4.0 | 23.7 | <4.0 | 112.0 | <4.0 | <4.0 | 5.4 |
| Barium, total | ug/L | 262.0 | 465.0 | 59.0 | 137.0 | 713.0 | 96.4 | 377.0 | 784.0 | 2110.0 | 360.0 | 154.0 | 310.0 |
| Benzene | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | 1.5 | <1.0 | <1.0 | 1.3 | 2.2 | <1.0 | <1.0 | <1.0 |
| Beryllium, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Bromochloromethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromodichloromethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromoform | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromomethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cadmium, total | ug/L | <.8 | <.8 | .8 | <.8 | <.8 | .8 | <.8 | <.8 | <.8 | <.8 | <.8 | <.8 |
| Carbon disulfide | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzene | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | 5.2 | <1.0 | <1.0 | 1.5 | 1.2 | <1.0 | <1.0 | <1.0 |
| Chloroethane | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.1 | 1.2 | <1.0 | <1.0 | <1.0 |
| Chloroform | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloromethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chromium, total | ug/L | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 |
| Cis-1,2-dichloroethylene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cis-1,3-dichloropropene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cobalt, total | ug/L | <.4 | <.4 | <.4 | <.4 | .9 | <.4 | .9 | 14.0 | 9.7 | <.4 | <.4 | 8.7 |
| Copper, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Dibromochloromethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Dibromomethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Ethylbenzene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Lead, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Methyl iodide | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Methylene chloride | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Nickel, total | ug/L | <4.0 | <4.0 | <4.0 | <4.0 | 26.1 | <4.0 | 6.3 | 19.0 | 31.4 | <4.0 | <4.0 | 14.2 |
| Selenium, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Silver, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Tetrachloroethylene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | ug/L | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Toluene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,2-dichloroethylene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |

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

## Table 1

### Analytical Data Summary for 3/18/2024

| Constituents | Units | GWD-1 | MW-10 | MW-13 | MW-14 | MW-16 | MW-17 | MW-18 | MW-1D | MW-20 | MW-3 | MW-44 | MW-7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trans-1,4-dichloro-2-butene | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethylene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trichlorofluoromethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Vanadium, total | ug/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| Vinyl acetate | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl chloride | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Xylenes, total | ug/L | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | ug/L | <20.0 | 28.3 | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 | <20.0 | <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-1 | 09/17/2014 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 04/28/2015 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 10/06/2015 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 04/23/2016 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 09/01/2016 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 03/21/2017 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 10/13/2017 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 03/09/2018 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 09/06/2018 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 03/07/2019 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 09/26/2019 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 04/02/2020 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 09/17/2020 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 03/25/2021 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 09/16/2021 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 03/16/2022 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 09/01/2022 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 03/24/2023 | ND | 2.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/17/2014 | | 5.6000 | | |
| Arsenic, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/06/2018 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 03/07/2019 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/26/2019 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 04/02/2020 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 03/25/2021 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 03/16/2022 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/01/2022 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 03/24/2023 | ND | 4.0000 | | |
| Barium, total | ug/L | MW-1 | 09/17/2014 | | 684.0000 | | |
| Barium, total | ug/L | MW-1 | 04/28/2015 | | 456.0000 | | |
| Barium, total | ug/L | MW-1 | 10/06/2015 | | 279.0000 | | |
| Barium, total | ug/L | MW-1 | 04/23/2016 | | 306.0000 | | |
| Barium, total | ug/L | MW-1 | 09/01/2016 | | 283.0000 | | |
| Barium, total | ug/L | MW-1 | 03/21/2017 | | 310.0000 | | |
| Barium, total | ug/L | MW-1 | 10/13/2017 | | 455.0000 | | |
| Barium, total | ug/L | MW-1 | 03/09/2018 | | 484.0000 | | |
| Barium, total | ug/L | MW-1 | 09/06/2018 | | 361.0000 | | |
| Barium, total | ug/L | MW-1 | 03/07/2019 | | 493.0000 | | |
| Barium, total | ug/L | MW-1 | 09/26/2019 | | 405.0000 | | |
| Barium, total | ug/L | MW-1 | 04/02/2020 | | 452.0000 | | |
| Barium, total | ug/L | MW-1 | 09/17/2020 | | 492.0000 | | |
| Barium, total | ug/L | MW-1 | 03/25/2021 | | 715.0000 | | |
| Barium, total | ug/L | MW-1 | 09/16/2021 | | 467.0000 | | |
| Barium, total | ug/L | MW-1 | 03/16/2022 | | 642.0000 | | |
| Barium, total | ug/L | MW-1 | 09/01/2022 | | 580.0000 | | |
| Barium, total | ug/L | MW-1 | 03/24/2023 | | 657.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/17/2014 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/06/2018 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 03/07/2019 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/26/2019 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 04/02/2020 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 03/25/2021 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 03/16/2022 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/01/2022 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 03/24/2023 | ND | 4.0000 | | |
| Cadmium, total | ug/L | MW-1 | 09/17/2014 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 04/28/2015 | ND | 0.8000 | | |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

### Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Cadmium, total | ug/L | MW-1 | 10/06/2015 | | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 04/23/2016 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 09/01/2016 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 03/21/2017 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 10/13/2017 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 03/09/2018 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 09/06/2018 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 03/07/2019 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 09/26/2019 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 04/02/2020 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 09/17/2020 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 03/25/2021 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 09/16/2021 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 03/16/2022 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 09/01/2022 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 03/24/2023 | ND | 0.8000 | | |
| Chromium, total | ug/L | MW-1 | 09/17/2014 | | 8.9000 | | |
| Chromium, total | ug/L | MW-1 | 04/28/2015 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 10/06/2015 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 04/23/2016 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 09/01/2016 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 03/21/2017 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 10/13/2017 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 03/09/2018 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 09/06/2018 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 03/07/2019 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 09/26/2019 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 04/02/2020 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 09/17/2020 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 03/25/2021 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 09/16/2021 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 03/16/2022 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 09/01/2022 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 03/24/2023 | ND | 8.0000 | | |
| Cobalt, total | ug/L | MW-1 | 09/17/2014 | | 30.6000 | | |
| Cobalt, total | ug/L | MW-1 | 04/28/2015 | | 6.0000 | | |
| Cobalt, total | ug/L | MW-1 | 10/06/2015 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-1 | 04/23/2016 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-1 | 09/01/2016 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-1 | 03/21/2017 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-1 | 10/13/2017 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-1 | 03/09/2018 | | 2.5000 | | |
| Cobalt, total | ug/L | MW-1 | 09/06/2018 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-1 | 03/07/2019 | | 4.7000 | | |
| Cobalt, total | ug/L | MW-1 | 09/26/2019 | | 11.2000 | | |
| Cobalt, total | ug/L | MW-1 | 04/02/2020 | | 2.7000 | | |
| Cobalt, total | ug/L | MW-1 | 09/17/2020 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-1 | 03/25/2021 | | 11.8000 | | |
| Cobalt, total | ug/L | MW-1 | 09/16/2021 | | 0.4000 | | |
| Cobalt, total | ug/L | MW-1 | 03/16/2022 | | 2.1000 | | |
| Cobalt, total | ug/L | MW-1 | 09/01/2022 | | 9.4000 | | |
| Cobalt, total | ug/L | MW-1 | 03/24/2023 | | 14.1000 | | |
| Copper, total | ug/L | MW-1 | 09/17/2014 | | 11.6000 | | |
| Copper, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 09/06/2018 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 03/07/2019 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 09/26/2019 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 04/02/2020 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 03/25/2021 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 03/16/2022 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 09/01/2022 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 03/24/2023 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 09/17/2014 | | 6.9000 | | |
| Lead, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

### Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Lead, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 09/06/2018 | | 7.4000 | | |
| Lead, total | ug/L | MW-1 | 03/07/2019 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 09/26/2019 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 04/02/2020 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 03/25/2021 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 03/16/2022 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 09/01/2022 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 03/24/2023 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 09/17/2014 | | 60.4000 | | |
| Nickel, total | ug/L | MW-1 | 04/28/2015 | | 20.6000 | | |
| Nickel, total | ug/L | MW-1 | 10/06/2015 | | 10.6000 | | |
| Nickel, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 10/13/2017 | | 13.3000 | | |
| Nickel, total | ug/L | MW-1 | 03/09/2018 | | 20.1000 | | |
| Nickel, total | ug/L | MW-1 | 09/06/2018 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 03/07/2019 | | 16.7000 | | |
| Nickel, total | ug/L | MW-1 | 09/26/2019 | | 9.1000 | | |
| Nickel, total | ug/L | MW-1 | 04/02/2020 | | 5.1000 | | |
| Nickel, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 03/25/2021 | | 28.1000 | | |
| Nickel, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 03/16/2022 | | 15.5000 | | |
| Nickel, total | ug/L | MW-1 | 09/01/2022 | | 12.6000 | | |
| Nickel, total | ug/L | MW-1 | 03/24/2023 | | 21.5000 | | |
| Selenium, total | ug/L | MW-1 | 09/17/2014 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 09/06/2018 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 03/07/2019 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 09/26/2019 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 04/02/2020 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 03/25/2021 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 03/16/2022 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 09/01/2022 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 03/24/2023 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/17/2014 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/06/2018 | ND | 8.0000 | 4.0000 | ** |
| Silver, total | ug/L | MW-1 | 03/07/2019 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/26/2019 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 04/02/2020 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 03/25/2021 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 03/16/2022 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/01/2022 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 03/24/2023 | ND | 4.0000 | | |
| Thallium, total | ug/L | MW-1 | 09/17/2014 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | 2.0000 | ** |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

### Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Thallium, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 09/06/2018 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 03/07/2019 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 09/26/2019 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 04/02/2020 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 09/17/2020 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 03/25/2021 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 09/16/2021 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 03/16/2022 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 09/01/2022 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 03/24/2023 | ND | 2.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/17/2014 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 04/28/2015 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 10/06/2015 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 04/23/2016 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/01/2016 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 03/21/2017 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 10/13/2017 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 03/09/2018 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/06/2018 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 03/07/2019 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/26/2019 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 04/02/2020 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/17/2020 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 03/25/2021 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/16/2021 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 03/16/2022 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/01/2022 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 03/24/2023 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 09/17/2014 | | 32.0000 | | |
| Zinc, total | ug/L | MW-1 | 04/28/2015 | | 12.3000 | | |
| Zinc, total | ug/L | MW-1 | 10/06/2015 | | 8.8000 | | |
| Zinc, total | ug/L | MW-1 | 04/23/2016 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 09/01/2016 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-1 | 03/21/2017 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-1 | 10/13/2017 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-1 | 03/09/2018 | | 11.5000 | | |
| Zinc, total | ug/L | MW-1 | 09/06/2018 | | 15.6000 | | |
| Zinc, total | ug/L | MW-1 | 03/07/2019 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-1 | 09/26/2019 | | 27.7000 | | |
| Zinc, total | ug/L | MW-1 | 04/02/2020 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 09/17/2020 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 03/25/2021 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 09/16/2021 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 03/16/2022 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 09/01/2022 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 03/24/2023 | ND | 20.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/18/2014 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 04/28/2015 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 10/06/2015 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 04/23/2016 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/01/2016 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/21/2017 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 10/13/2017 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/09/2018 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/06/2018 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/07/2019 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/26/2019 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 04/02/2020 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/17/2020 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/25/2021 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/16/2021 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/16/2022 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/01/2022 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/24/2023 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/07/2023 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/18/2024 | ND | 2.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

### Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Arsenic, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Barium, total | ug/L | MW-17 | 09/18/2014 | | 91.4000 | | |
| Barium, total | ug/L | MW-17 | 04/28/2015 | | 106.0000 | | |
| Barium, total | ug/L | MW-17 | 10/06/2015 | | 85.3000 | | |
| Barium, total | ug/L | MW-17 | 04/23/2016 | | 99.2000 | | |
| Barium, total | ug/L | MW-17 | 09/01/2016 | | 88.5000 | | |
| Barium, total | ug/L | MW-17 | 03/21/2017 | | 93.7000 | | |
| Barium, total | ug/L | MW-17 | 10/13/2017 | | 89.5000 | | |
| Barium, total | ug/L | MW-17 | 03/09/2018 | | 86.5000 | | |
| Barium, total | ug/L | MW-17 | 09/06/2018 | | 83.2000 | | |
| Barium, total | ug/L | MW-17 | 03/07/2019 | | 99.9000 | | |
| Barium, total | ug/L | MW-17 | 09/26/2019 | | 95.8000 | | |
| Barium, total | ug/L | MW-17 | 04/02/2020 | | 102.0000 | | |
| Barium, total | ug/L | MW-17 | 09/17/2020 | | 94.6000 | | |
| Barium, total | ug/L | MW-17 | 03/25/2021 | | 92.2000 | | |
| Barium, total | ug/L | MW-17 | 09/16/2021 | | 89.6000 | | |
| Barium, total | ug/L | MW-17 | 03/16/2022 | | 89.9000 | | |
| Barium, total | ug/L | MW-17 | 09/01/2022 | | 90.3000 | | |
| Barium, total | ug/L | MW-17 | 03/24/2023 | | 84.3000 | | |
| Barium, total | ug/L | MW-17 | 09/07/2023 | | 92.4000 | | |
| Barium, total | ug/L | MW-17 | 03/18/2024 | | 96.4000 | | |
| Beryllium, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Cadmium, total | ug/L | MW-17 | 09/18/2014 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 04/28/2015 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 10/06/2015 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 04/23/2016 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/01/2016 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 03/21/2017 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 10/13/2017 | | 1.4000 | | |
| Cadmium, total | ug/L | MW-17 | 03/09/2018 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/06/2018 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 03/07/2019 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/26/2019 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 04/02/2020 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/17/2020 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 03/25/2021 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/16/2021 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 03/16/2022 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/01/2022 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 03/24/2023 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/07/2023 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 03/18/2024 | | 0.8000 | | |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

## Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Chromium, total | ug/L | MW-17 | 09/18/2014 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 04/28/2015 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 10/06/2015 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 04/23/2016 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/01/2016 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/21/2017 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 10/13/2017 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/09/2018 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/06/2018 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/07/2019 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/26/2019 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 04/02/2020 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/17/2020 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/25/2021 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/16/2021 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/16/2022 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/01/2022 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/24/2023 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/07/2023 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/18/2024 | ND | 8.0000 | | |
| Cobalt, total | ug/L | MW-17 | 09/18/2014 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 04/28/2015 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 10/06/2015 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 04/23/2016 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 09/01/2016 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 03/21/2017 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 10/13/2017 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 03/09/2018 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 09/06/2018 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 03/07/2019 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 09/26/2019 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 04/02/2020 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 09/17/2020 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 03/25/2021 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 09/16/2021 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 03/16/2022 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 09/01/2022 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 03/24/2023 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 09/07/2023 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 03/18/2024 | ND | 0.4000 | 0.8000 | ** |
| Copper, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/25/2021 | 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 | |
|---|---|---|---|---|---|---|---|
| Lead, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/06/2018 | ND | 8.0000 | 4.0000 | ** |
| Silver, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | 2.0000 | ** |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

### Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Thallium, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 03/07/2019 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/26/2019 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 04/02/2020 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/17/2020 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 03/25/2021 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/16/2021 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 03/16/2022 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/01/2022 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 03/24/2023 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/07/2023 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 03/18/2024 | ND | 2.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/18/2014 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 04/28/2015 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 10/06/2015 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 04/23/2016 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/01/2016 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/21/2017 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 10/13/2017 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/09/2018 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/06/2018 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/07/2019 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/26/2019 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 04/02/2020 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/17/2020 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/25/2021 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/16/2021 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/16/2022 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/01/2022 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/24/2023 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/07/2023 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/18/2024 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/18/2014 | | 8.1000 | | |
| Zinc, total | ug/L | MW-17 | 04/28/2015 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 10/06/2015 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 04/23/2016 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/01/2016 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 03/21/2017 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 10/13/2017 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 03/09/2018 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 09/06/2018 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 03/07/2019 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 09/26/2019 | | 8.5000 | | |
| Zinc, total | ug/L | MW-17 | 04/02/2020 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/17/2020 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 03/25/2021 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/16/2021 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 03/16/2022 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/01/2022 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 03/24/2023 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/07/2023 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 03/18/2024 | ND | 20.0000 | | |
| Antimony, total | ug/L | MW-44 | 03/16/2022 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-44 | 11/13/2023 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-44 | 03/18/2024 | ND | 2.0000 | | |
| Arsenic, total | ug/L | MW-44 | 03/16/2022 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Barium, total | ug/L | MW-44 | 03/16/2022 | | 124.0000 | | |
| Barium, total | ug/L | MW-44 | 11/13/2023 | | 137.0000 | | |
| Barium, total | ug/L | MW-44 | 03/18/2024 | | 154.0000 | | |
| Beryllium, total | ug/L | MW-44 | 03/16/2022 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Cadmium, total | ug/L | MW-44 | 03/16/2022 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-44 | 11/13/2023 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-44 | 03/18/2024 | ND | 0.8000 | | |
| Chromium, total | ug/L | MW-44 | 03/16/2022 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-44 | 11/13/2023 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-44 | 03/18/2024 | ND | 8.0000 | | |
| Cobalt, total | ug/L | MW-44 | 03/16/2022 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-44 | 11/13/2023 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-44 | 03/18/2024 | ND | 0.4000 | 0.8000 | ** |
| Copper, total | ug/L | MW-44 | 03/16/2022 | | 4.3000 | | |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

### Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Copper, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-44 | 03/16/2022 | | 6.1000 | | |
| Lead, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-44 | 03/16/2022 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-44 | 03/16/2022 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-44 | 03/16/2022 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Thallium, total | ug/L | MW-44 | 03/16/2022 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-44 | 11/13/2023 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-44 | 03/18/2024 | ND | 2.0000 | | |
| Vanadium, total | ug/L | MW-44 | 03/16/2022 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-44 | 11/13/2023 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-44 | 03/18/2024 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-44 | 03/16/2022 | | 69.2000 | | |
| Zinc, total | ug/L | MW-44 | 11/13/2023 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-44 | 03/18/2024 | 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 | GWD-1 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | GWD-1 | 03/18/2024 | ND | 4.0000 | ** | 5.6000 |
| Barium, total | ug/L | GWD-1 | 03/18/2024 | | 262.0000 | | 776.0663 |
| Beryllium, total | ug/L | GWD-1 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | GWD-1 | 03/18/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | GWD-1 | 03/18/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | GWD-1 | 03/18/2024 | ND | 0.4000 | | 30.6000 |
| Copper, total | ug/L | GWD-1 | 03/18/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | GWD-1 | 03/18/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | GWD-1 | 03/18/2024 | ND | 4.0000 | | 60.4000 |
| Selenium, total | ug/L | GWD-1 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | GWD-1 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | GWD-1 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | GWD-1 | 03/18/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | GWD-1 | 03/18/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-10 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-10 | 03/18/2024 | ND | 4.0000 | | 5.6000 |
| Barium, total | ug/L | MW-10 | 03/18/2024 | | 465.0000 | | 776.0663 |
| Beryllium, total | ug/L | MW-10 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-10 | 03/18/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-10 | 03/18/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-10 | 03/18/2024 | ND | 0.4000 | | 30.6000 |
| Copper, total | ug/L | MW-10 | 03/18/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-10 | 03/18/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-10 | 03/18/2024 | ND | 4.0000 | | 60.4000 |
| Selenium, total | ug/L | MW-10 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-10 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-10 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-10 | 03/18/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-10 | 03/18/2024 | | 28.3000 | | 69.2000 |
| Antimony, total | ug/L | MW-13 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-13 | 03/18/2024 | ND | 4.0000 | | 5.6000 |
| Barium, total | ug/L | MW-13 | 03/18/2024 | | 59.0000 | | 776.0663 |
| Beryllium, total | ug/L | MW-13 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-13 | 03/18/2024 | | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-13 | 03/18/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-13 | 03/18/2024 | ND | 0.4000 | | 30.6000 |
| Copper, total | ug/L | MW-13 | 03/18/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-13 | 03/18/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-13 | 03/18/2024 | ND | 4.0000 | | 60.4000 |
| Selenium, total | ug/L | MW-13 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-13 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-13 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-13 | 03/18/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-13 | 03/18/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-14 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-14 | 03/18/2024 | ND | 4.0000 | | 5.6000 |
| Barium, total | ug/L | MW-14 | 03/18/2024 | | 137.0000 | | 776.0663 |
| Beryllium, total | ug/L | MW-14 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-14 | 03/18/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-14 | 03/18/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-14 | 03/18/2024 | ND | 0.4000 | | 30.6000 |
| Copper, total | ug/L | MW-14 | 03/18/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-14 | 03/18/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-14 | 03/18/2024 | ND | 4.0000 | | 60.4000 |
| Selenium, total | ug/L | MW-14 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-14 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-14 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-14 | 03/18/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-14 | 03/18/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-16 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-16 | 03/18/2024 | | 20.4000 | * | 5.6000 |
| Barium, total | ug/L | MW-16 | 03/18/2024 | | 713.0000 | | 776.0663 |
| Beryllium, total | ug/L | MW-16 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-16 | 03/18/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-16 | 03/18/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-16 | 03/18/2024 | | 0.9000 | | 30.6000 |
| Copper, total | ug/L | MW-16 | 03/18/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-16 | 03/18/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-16 | 03/18/2024 | | 26.1000 | | 60.4000 |
| Selenium, total | ug/L | MW-16 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-16 | 03/18/2024 | 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-16 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-16 | 03/18/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-16 | 03/18/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-18 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-18 | 03/18/2024 | | 23.7000 | *** | 5.6000 |
| Barium, total | ug/L | MW-18 | 03/18/2024 | | 377.0000 | | 776.0663 |
| Beryllium, total | ug/L | MW-18 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-18 | 03/18/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-18 | 03/18/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-18 | 03/18/2024 | | 0.9000 | | 30.6000 |
| Copper, total | ug/L | MW-18 | 03/18/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-18 | 03/18/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-18 | 03/18/2024 | | 6.3000 | | 60.4000 |
| Selenium, total | ug/L | MW-18 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-18 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-18 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-18 | 03/18/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-18 | 03/18/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-1D | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-1D | 03/18/2024 | ND | 4.0000 | | 5.6000 |
| Barium, total | ug/L | MW-1D | 03/18/2024 | | 784.0000 | * | 776.0663 |
| Beryllium, total | ug/L | MW-1D | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-1D | 03/18/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-1D | 03/18/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-1D | 03/18/2024 | | 14.0000 | | 30.6000 |
| Copper, total | ug/L | MW-1D | 03/18/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-1D | 03/18/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-1D | 03/18/2024 | | 19.0000 | | 60.4000 |
| Selenium, total | ug/L | MW-1D | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-1D | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-1D | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-1D | 03/18/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-1D | 03/18/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-20 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-20 | 03/18/2024 | | 112.0000 | *** | 5.6000 |
| Barium, total | ug/L | MW-20 | 03/18/2024 | | 2110.0000 | *** | 776.0663 |
| Beryllium, total | ug/L | MW-20 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-20 | 03/18/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-20 | 03/18/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-20 | 03/18/2024 | | 9.7000 | | 30.6000 |
| Copper, total | ug/L | MW-20 | 03/18/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-20 | 03/18/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-20 | 03/18/2024 | | 31.4000 | | 60.4000 |
| Selenium, total | ug/L | MW-20 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-20 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-20 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-20 | 03/18/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-20 | 03/18/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-3 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-3 | 03/18/2024 | ND | 4.0000 | | 5.6000 |
| Barium, total | ug/L | MW-3 | 03/18/2024 | | 360.0000 | | 776.0663 |
| Beryllium, total | ug/L | MW-3 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-3 | 03/18/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-3 | 03/18/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-3 | 03/18/2024 | ND | 0.4000 | | 30.6000 |
| Copper, total | ug/L | MW-3 | 03/18/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-3 | 03/18/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-3 | 03/18/2024 | ND | 4.0000 | | 60.4000 |
| Selenium, total | ug/L | MW-3 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-3 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-3 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-3 | 03/18/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-3 | 03/18/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-7 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-7 | 03/18/2024 | | 5.4000 | ** | 5.6000 |
| Barium, total | ug/L | MW-7 | 03/18/2024 | | 310.0000 | | 776.0663 |
| Beryllium, total | ug/L | MW-7 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-7 | 03/18/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-7 | 03/18/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-7 | 03/18/2024 | | 8.7000 | | 30.6000 |
| Copper, total | ug/L | MW-7 | 03/18/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-7 | 03/18/2024 | ND | 4.0000 | | 7.4000 |

* - 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 |
|---|---|---|---|---|---|---|---|
| Nickel, total | ug/L | MW-7 | 03/18/2024 | | 14.2000 | | 60.4000 |
| Selenium, total | ug/L | MW-7 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-7 | 03/18/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-7 | 03/18/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-7 | 03/18/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-7 | 03/18/2024 | ND | 20.0000 | | 69.2000 |

* - 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 | 0 | 41 | 0.000 | 7 | 314 | 0.022 |
| Arsenic, total | 1 | 41 | 0.024 | 149 | 318 | 0.469 |
| Barium, total | 41 | 41 | 1.000 | 316 | 316 | 1.000 |
| Beryllium, total | 0 | 41 | 0.000 | 4 | 315 | 0.013 |
| Cadmium, total | 3 | 41 | 0.073 | 21 | 316 | 0.066 |
| Chromium, total | 1 | 41 | 0.024 | 29 | 315 | 0.092 |
| Cobalt, total | 11 | 41 | 0.268 | 175 | 316 | 0.554 |
| Copper, total | 2 | 41 | 0.049 | 68 | 315 | 0.216 |
| Lead, total | 3 | 41 | 0.073 | 45 | 315 | 0.143 |
| Nickel, total | 12 | 41 | 0.293 | 257 | 315 | 0.816 |
| Selenium, total | 0 | 41 | 0.000 | 37 | 318 | 0.116 |
| Silver, total | 0 | 41 | 0.000 | 0 | 314 | 0.000 |
| Thallium, total | 0 | 41 | 0.000 | 1 | 314 | 0.003 |
| Vanadium, total | 0 | 41 | 0.000 | 28 | 315 | 0.089 |
| Zinc, total | 9 | 41 | 0.220 | 99 | 315 | 0.314 |

N = Total number of measurements in all wells.
Detect = Total number of detections in all wells.
Proportion = Detect/N.

## Table 4

### Shapiro-Wilk Multiple Group Test of Normality

| Constituent | Detect | N | Detect Freq | G raw | G log | G cbrt | G sqrt | G sqr | G cub | Crit Value | Dist Form | Model Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony, total | 0 | 41 | 0.000 | | | | | | | | | nonpar |
| Arsenic, total | 1 | 41 | 0.024 | | | | | | | | | nonpar |
| Barium, total | 41 | 41 | 1.000 | 0.568 | 1.064 | | | | | 2.326 | normal | normal |
| Beryllium, total | 0 | 41 | 0.000 | | | | | | | | | nonpar |
| Cadmium, total | 3 | 41 | 0.073 | | | | | | | | | nonpar |
| Chromium, total | 1 | 41 | 0.024 | | | | | | | | | nonpar |
| Cobalt, total | 11 | 41 | 0.268 | 2.030 | 0.246 | | | | | 2.326 | normal | nonpar |
| Copper, total | 2 | 41 | 0.049 | | | | | | | | | nonpar |
| Lead, total | 3 | 41 | 0.073 | | | | | | | | | nonpar |
| Nickel, total | 12 | 41 | 0.293 | 2.926 | 1.116 | | | | | 2.326 | lognor | nonpar |
| Selenium, total | 0 | 41 | 0.000 | | | | | | | | | nonpar |
| Silver, total | 0 | 41 | 0.000 | | | | | | | | | nonpar |
| Thallium, total | 0 | 41 | 0.000 | | | | | | | | | nonpar |
| Vanadium, total | 0 | 41 | 0.000 | | | | | | | | | nonpar |
| Zinc, total | 9 | 41 | 0.220 | 0.938 | 0.094 | | | | | 2.326 | normal | nonpar |

* - Distribution override for that constituent.
Fit to distribution is confirmed if G <= critical value.
Model type may not match distributional form when detection frequency < 50%.

## Table 5

## Summary Statistics and Prediction Limits

| Constituent | Units | Detect | N | Mean | SD | alpha | Factor | Pred Limit | Type | | Conf |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony, total | ug/L | 0 | 41 | | | | | 2.0000 | nonpar | *** | 0.99 |
| Arsenic, total | ug/L | 1 | 41 | | | | | 5.6000 | nonpar | | 0.99 |
| Barium, total | ug/L | 41 | 41 | 263.0902 | 209.1627 | 0.0100 | 2.4525 | 776.0663 | normal | | |
| Beryllium, total | ug/L | 0 | 41 | | | | | 4.0000 | nonpar | *** | 0.99 |
| Cadmium, total | ug/L | 3 | 41 | | | | | 1.4000 | nonpar | | 0.99 |
| Chromium, total | ug/L | 1 | 41 | | | | | 8.9000 | nonpar | | 0.99 |
| Cobalt, total | ug/L | 11 | 41 | | | | | 30.6000 | nonpar | | 0.99 |
| Copper, total | ug/L | 2 | 41 | | | | | 11.6000 | nonpar | | 0.99 |
| Lead, total | ug/L | 3 | 41 | | | | | 7.4000 | nonpar | | 0.99 |
| Nickel, total | ug/L | 12 | 41 | | | | | 60.4000 | nonpar | | 0.99 |
| Selenium, total | ug/L | 0 | 41 | | | | | 4.0000 | nonpar | *** | 0.99 |
| Silver, total | ug/L | 0 | 41 | | | | | 4.0000 | nonpar | *** | 0.99 |
| Thallium, total | ug/L | 0 | 41 | | | | | 2.0000 | nonpar | *** | 0.99 |
| Vanadium, total | ug/L | 0 | 41 | | | | | 20.0000 | nonpar | *** | 0.99 |
| Zinc, total | ug/L | 9 | 41 | | | | | 69.2000 | nonpar | | 0.99 |

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).
* - Insufficient Data.
** - Calculated limit raised to Manual Reporting Limit.
*** - Nonparametric limit based on ND value.
For transformed data, mean and SD in transformed units and prediction limit in original units.
All sample sizes and statistics are based on outlier free data.
For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

## Table 6

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

| Constituent | Units | Well | Date | Result | ND Qualifier | Date Range | N | Critical Value |
|---|---|---|---|---|---|---|---|---|

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 | GWD-1 | 04/16/2008 | ND | 5.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 06/17/2008 | | 6.0000 | * | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 08/20/2008 | | 9.0000 | * | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 10/16/2008 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 03/16/2009 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 09/24/2009 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 04/19/2010 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 09/29/2010 | | 4.2000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 05/03/2011 | | 6.1000 | * | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 10/11/2011 | | 5.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 04/23/2012 | | 4.7000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 09/11/2012 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 04/04/2013 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 10/10/2013 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 04/23/2014 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 09/18/2014 | | 4.1000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 04/29/2015 | | 4.3000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 10/06/2015 | | 528.0000 | * | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 12/17/2015 | | 10.1000 | * | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 04/23/2016 | | 4.1000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 09/01/2016 | | 5.3000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 03/22/2017 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 10/13/2017 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 03/09/2018 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 09/06/2018 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 03/07/2019 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 09/26/2019 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 04/02/2020 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 09/17/2020 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 03/25/2021 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 03/16/2022 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 09/01/2022 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 03/24/2023 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 09/07/2023 | | 6.8000 | * | 5.6000 |
| Arsenic, total | ug/L | GWD-1 | 03/18/2024 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/16/2008 | | 39.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 06/17/2008 | | 28.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 08/20/2008 | | 35.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 10/16/2008 | | 36.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 12/04/2008 | | 40.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/16/2009 | | 37.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/24/2009 | | 33.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/19/2010 | | 33.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/29/2010 | | 32.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 05/03/2011 | | 33.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 10/11/2011 | | 39.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/23/2012 | | 42.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/10/2012 | | 39.5000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/04/2013 | | 23.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 10/11/2013 | | 35.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/23/2014 | | 37.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/18/2014 | | 34.3000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/29/2015 | | 38.5000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 10/06/2015 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/23/2016 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/01/2016 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/22/2017 | | 9.3000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 10/13/2017 | | 19.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/09/2018 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/06/2018 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/26/2019 | | 6.3000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/02/2020 | | 9.3000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/17/2020 | | 6.5000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/25/2021 | | 21.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/16/2021 | | 10.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/16/2022 | | 26.5000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/01/2022 | | 4.7000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/24/2023 | | 4.3000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/07/2023 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/18/2024 | | 20.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/19/2010 | | 64.6000 | * | 5.6000 |

* - 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 |
|---|---|---|---|---|---|---|---|
| Arsenic, total | ug/L | MW-18 | 05/27/2010 | | 19.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 07/28/2010 | | 29.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/29/2010 | | 173.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 11/03/2010 | | 225.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 05/04/2011 | | 11.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 10/11/2011 | | 8.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/23/2012 | | 29.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/11/2012 | | 15.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/04/2013 | | 9.6000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 10/11/2013 | | 17.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/23/2014 | | 9.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/17/2014 | | 22.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/28/2015 | | 45.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 10/06/2015 | | 39.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/23/2016 | | 51.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/01/2016 | | 81.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/21/2017 | | 49.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 10/13/2017 | | 50.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/09/2018 | | 46.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/06/2018 | | 74.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/07/2019 | | 87.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/26/2019 | | 99.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/02/2020 | | 81.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/17/2020 | | 34.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/25/2021 | | 9.6000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/16/2021 | | 36.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/16/2022 | | 34.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/01/2022 | | 24.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/24/2023 | | 67.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/07/2023 | | 26.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/18/2024 | | 23.7000 | * | 5.6000 |
| Barium, total | ug/L | MW-1D | 09/07/2023 | | 660.0000 | | 776.0663 |
| Barium, total | ug/L | MW-1D | 03/18/2024 | | 784.0000 | * | 776.0663 |
| Arsenic, total | ug/L | MW-20 | 04/19/2010 | | 165.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 05/27/2010 | | 144.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 07/28/2010 | | 165.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/29/2010 | | 86.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 11/03/2010 | | 64.3000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 05/04/2011 | | 47.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 10/11/2011 | | 60.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 04/24/2012 | | 44.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/11/2012 | | 59.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 04/05/2013 | | 37.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 10/11/2013 | | 61.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 04/23/2014 | | 55.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/18/2014 | | 75.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 04/28/2015 | | 45.5000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 10/06/2015 | | 81.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 04/23/2016 | | 81.5000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/01/2016 | | 77.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/21/2017 | | 79.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 10/13/2017 | | 96.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/09/2018 | | 83.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/06/2018 | | 99.6000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/07/2019 | | 78.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/26/2019 | | 83.6000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 04/02/2020 | | 65.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/17/2020 | | 87.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/25/2021 | | 106.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/16/2021 | | 87.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/16/2022 | | 127.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/01/2022 | | 133.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/24/2023 | | 94.6000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/07/2023 | | 83.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/18/2024 | | 112.0000 | * | 5.6000 |
| Barium, total | ug/L | MW-20 | 04/19/2010 | | 3790.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 05/27/2010 | | 4800.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 07/28/2010 | | 4410.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 09/29/2010 | | 3800.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 11/03/2010 | | 3500.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 05/04/2011 | | 2990.0000 | * | 776.0663 |

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

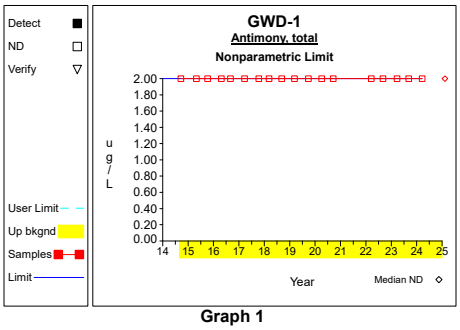
## Table 8

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

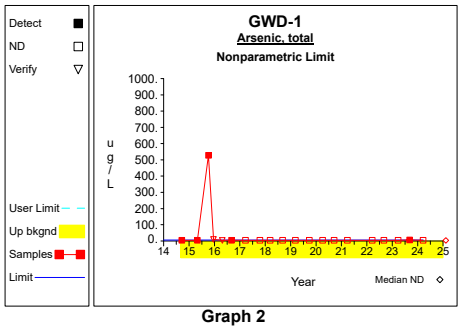
| Constituent | Units | Well | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Barium, total | ug/L | MW-20 | 10/11/2011 | | 3010.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 04/24/2012 | | 1850.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 09/11/2012 | | 2060.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 04/05/2013 | | 2910.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 10/11/2013 | | 2470.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 04/23/2014 | | 1830.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 09/18/2014 | | 2370.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 04/28/2015 | | 2390.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 10/06/2015 | | 2490.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 04/23/2016 | | 2260.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 09/01/2016 | | 2140.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 03/21/2017 | | 2140.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 10/13/2017 | | 2340.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 03/09/2018 | | 2010.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 09/06/2018 | | 2360.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 03/07/2019 | | 2100.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 09/26/2019 | | 2350.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 04/02/2020 | | 2300.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 09/17/2020 | | 1970.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 03/25/2021 | | 1970.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 09/16/2021 | | 2160.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 03/16/2022 | | 1890.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 09/01/2022 | | 2020.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 03/24/2023 | | 2000.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 09/07/2023 | | 1810.0000 | * | 776.0663 |
| Barium, total | ug/L | MW-20 | 03/18/2024 | | 2110.0000 | * | 776.0663 |
| Arsenic, total | ug/L | MW-7 | 04/16/2008 | ND | 5.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 06/17/2008 | ND | 5.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 08/20/2008 | ND | 5.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 10/16/2008 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 12/04/2008 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/16/2009 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/24/2009 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/19/2010 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/29/2010 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 05/03/2011 | | 4.3000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 10/10/2011 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/23/2012 | | 4.9000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/10/2012 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/04/2013 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 10/10/2013 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/22/2014 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/17/2014 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/28/2015 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 10/06/2015 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/23/2016 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/01/2016 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/22/2017 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 10/13/2017 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/09/2018 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/06/2018 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/07/2019 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/26/2019 | | 8.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 12/17/2019 | | 4.7000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/02/2020 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/17/2020 | | 6.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 12/03/2020 | | 7.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/25/2021 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/16/2021 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/16/2022 | | 4.3000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/01/2022 | | 5.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/24/2023 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/07/2023 | | 8.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/18/2024 | | 5.4000 | | 5.6000 |

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

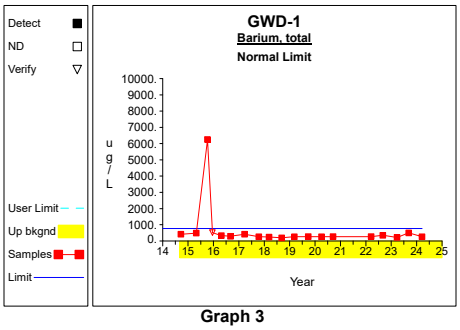
# Up vs. Down Prediction Limits



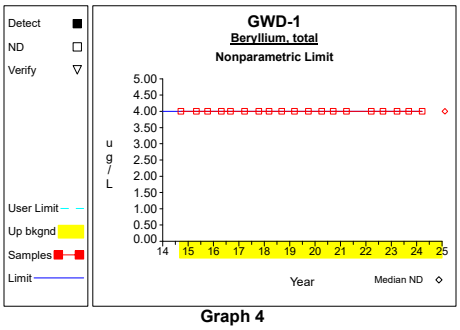

Graph 1



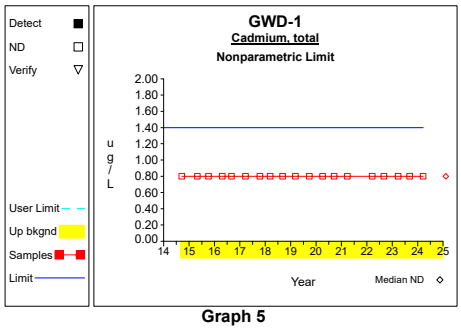

Graph 2



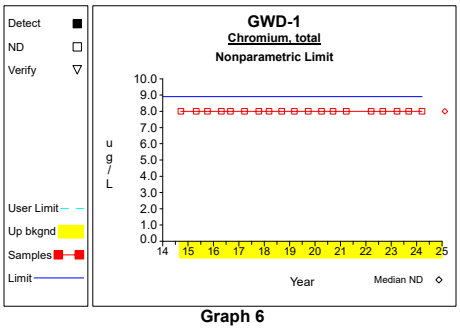

Graph 3



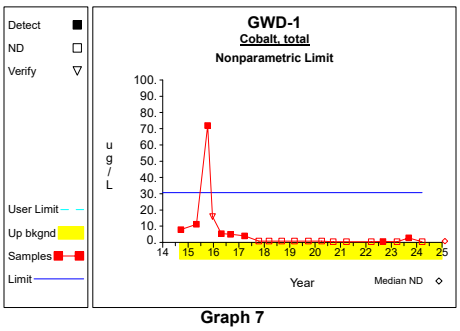

Graph 4



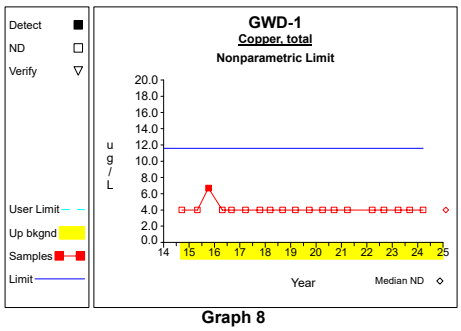

Graph 5



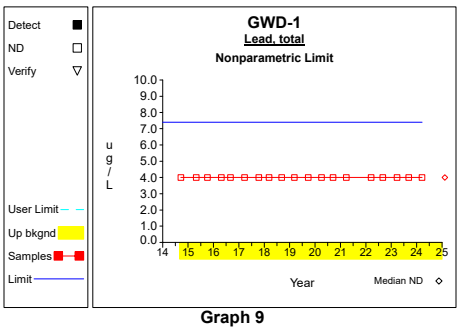

Graph 6



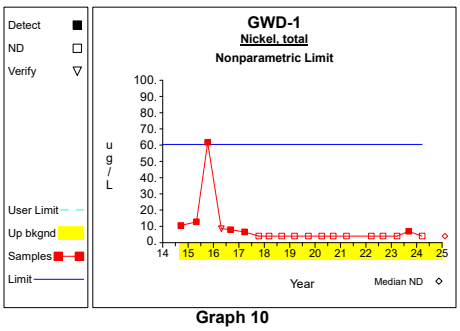

Graph 7



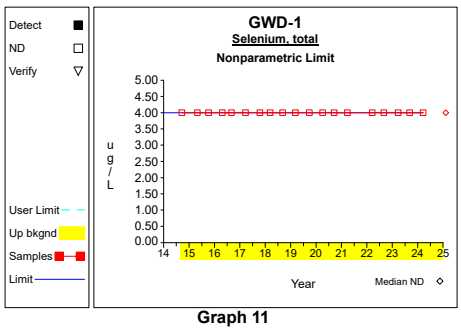

Graph 8



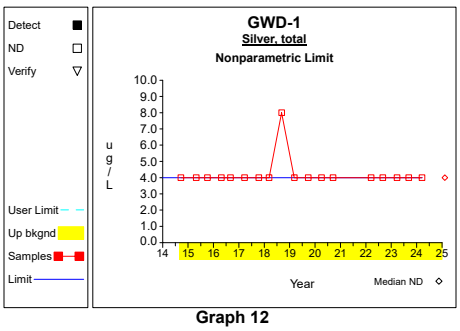

Graph 9



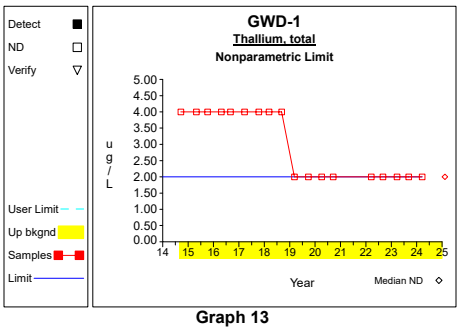

Graph 10



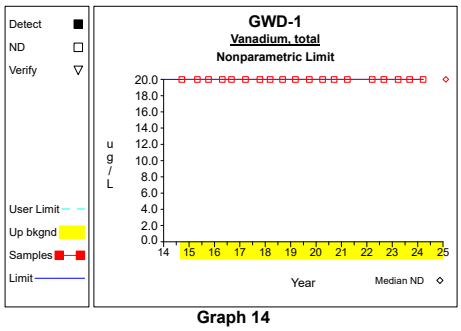

Graph 11



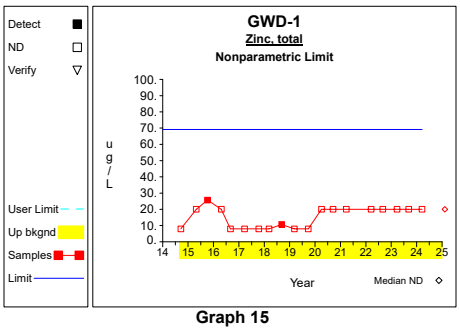

Graph 12




Graph 13



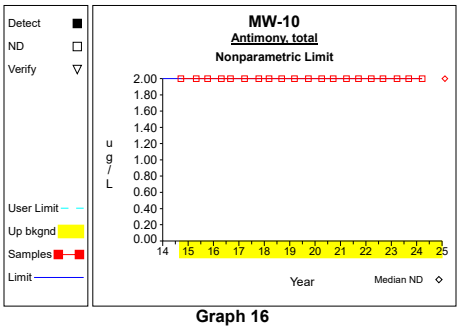

Graph 14



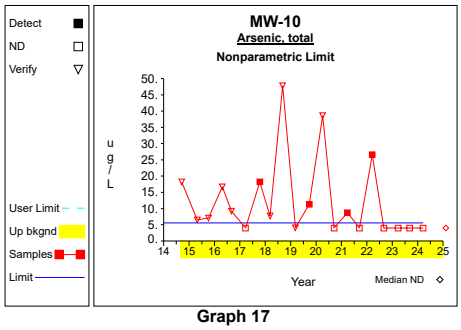

Graph 15

Prepared by: Otter Creek Environmental

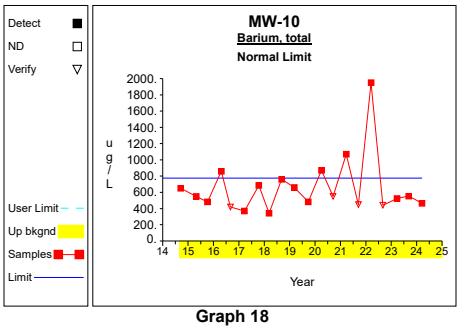
# Up vs. Down Prediction Limits



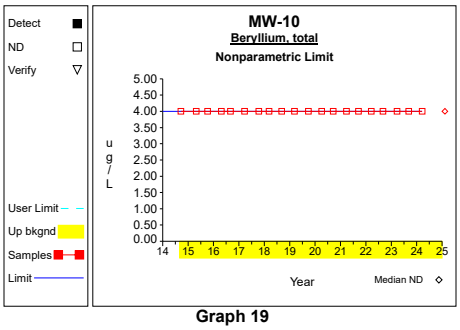

Graph 16



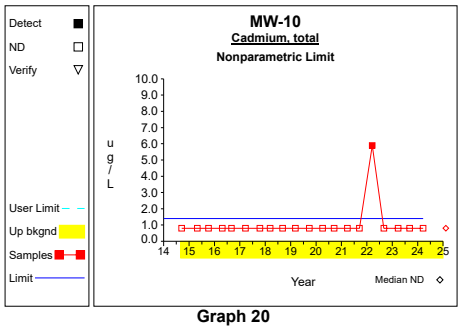

Graph 17



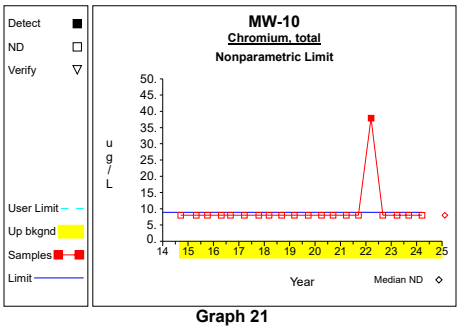

Graph 18



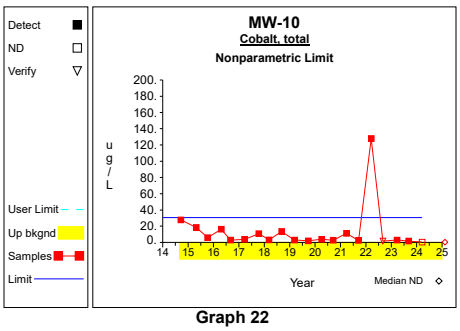

Graph 19



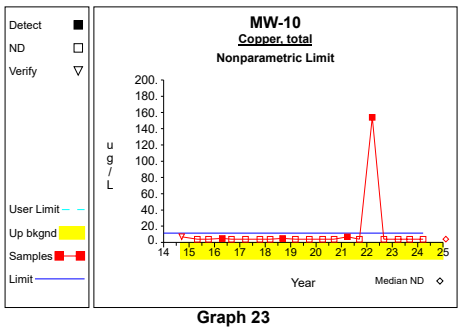

Graph 20



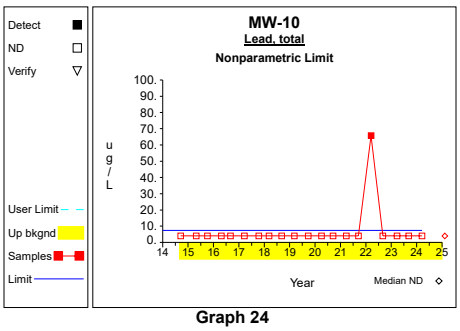

Graph 21



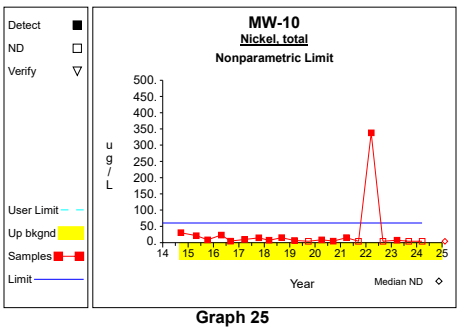

Graph 22



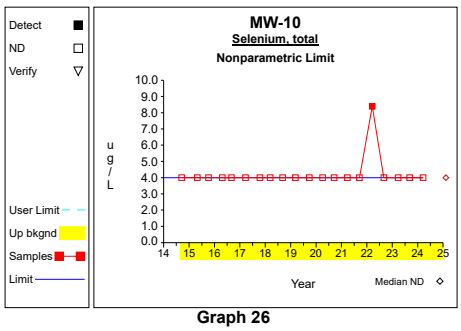

Graph 23



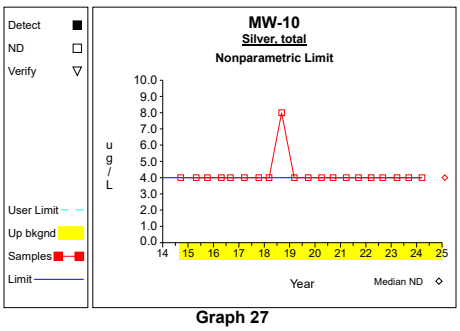

Graph 24



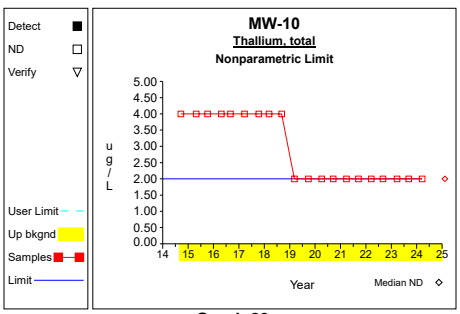

Graph 25



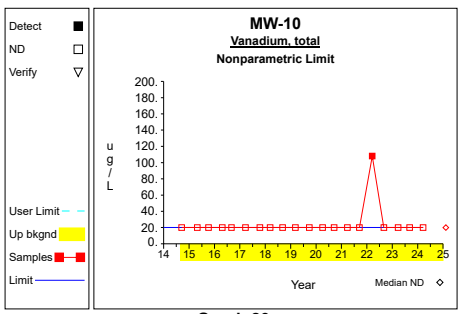

Graph 26



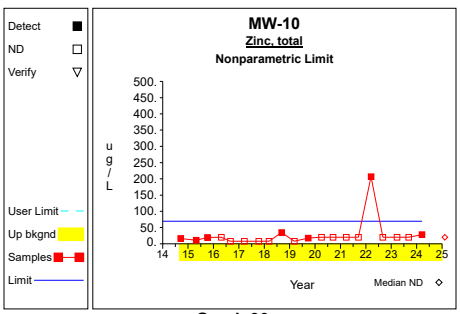

Graph 27




Graph 28

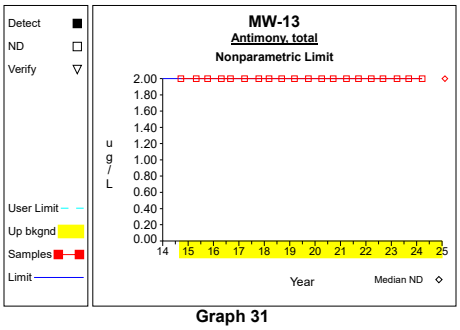



Graph 29

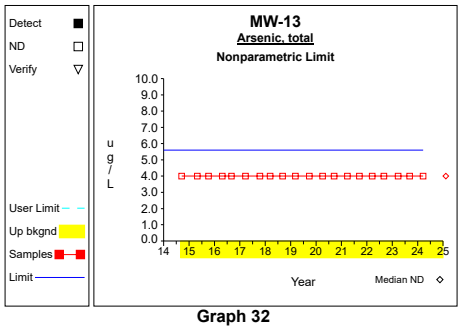



Graph 30

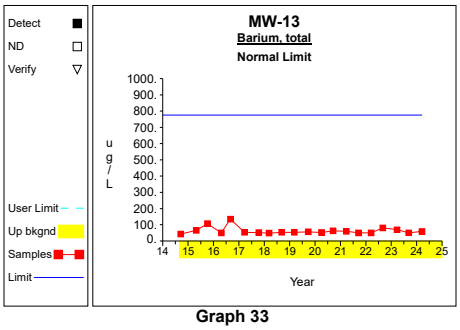
# Up vs. Down Prediction Limits



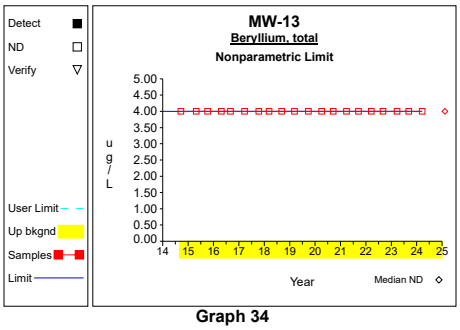

Graph 31



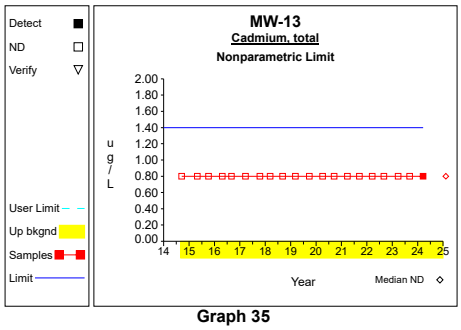

Graph 32



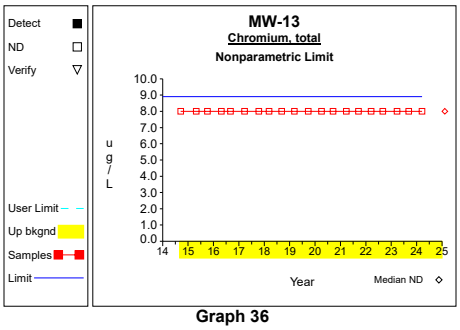

Graph 33



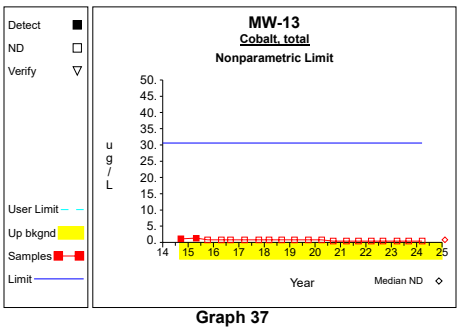

Graph 34



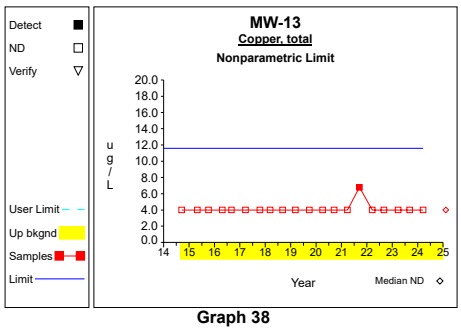

Graph 35



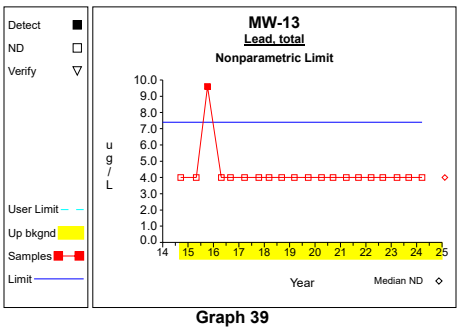

Graph 36



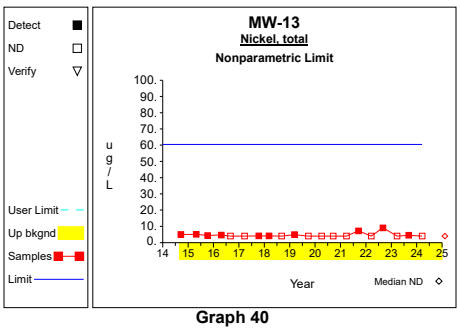

Graph 37



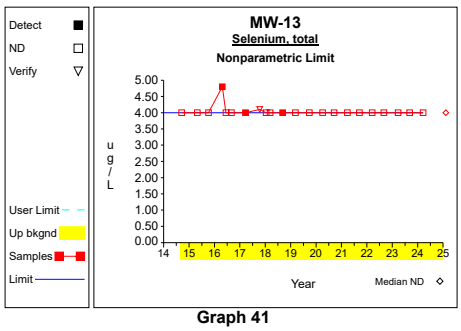

Graph 38



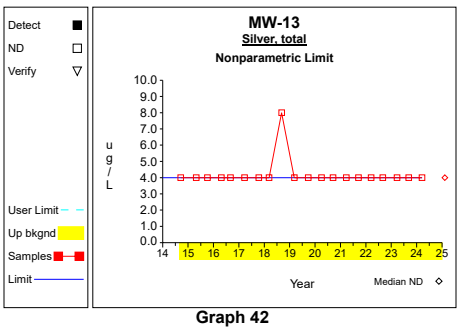

Graph 39



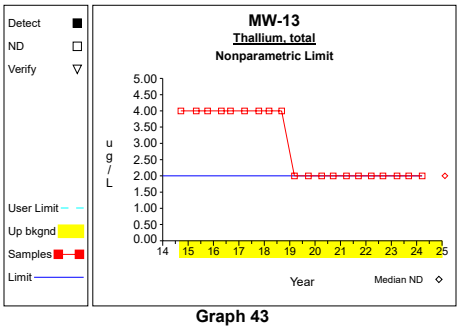

Graph 40



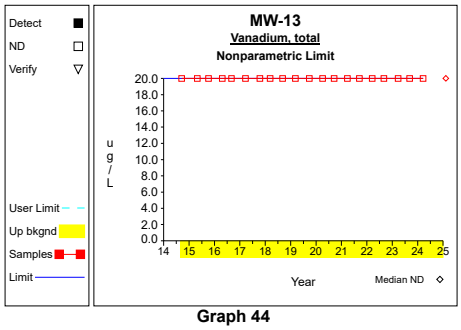

Graph 41



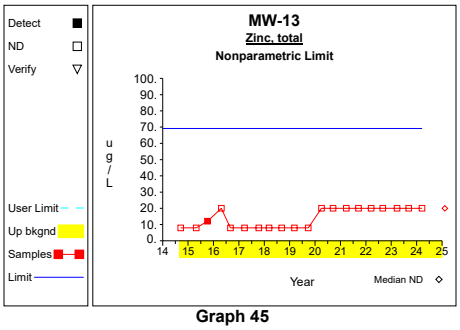

Graph 42




Graph 43



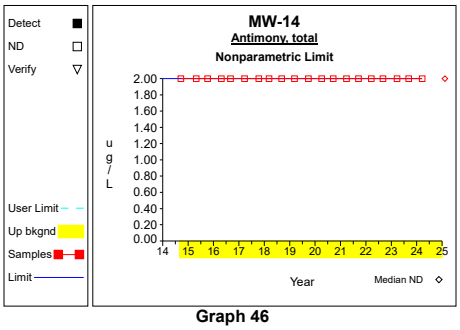

Graph 44



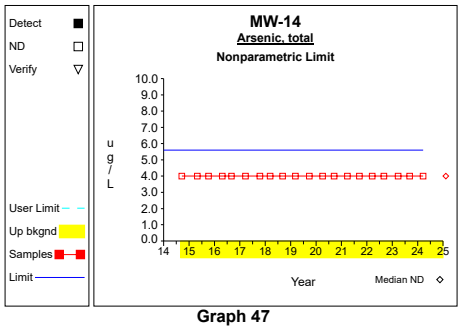

Graph 45

Prepared by: Otter Creek Environmental

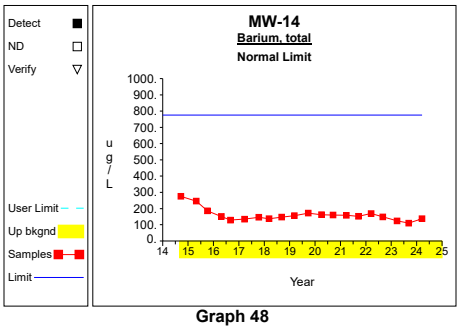
# Up vs. Down Prediction Limits



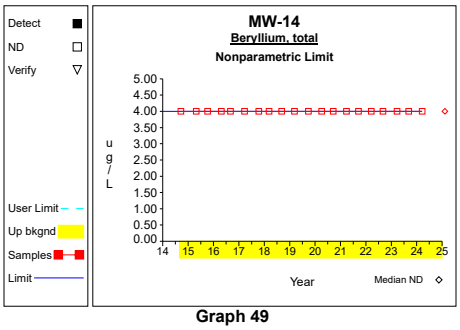

Graph 46



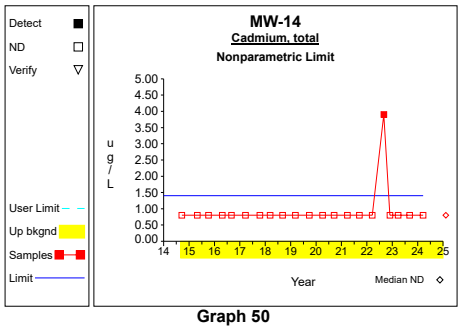

Graph 47



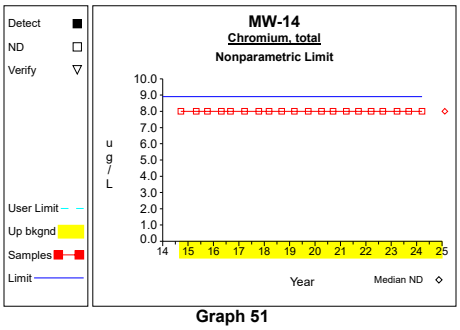

Graph 48



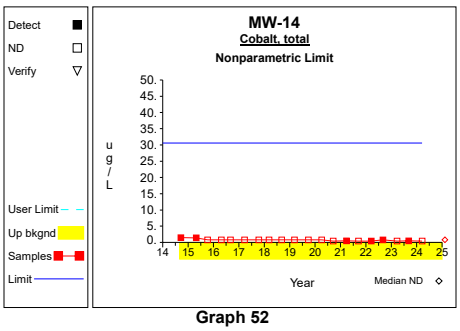

Graph 49



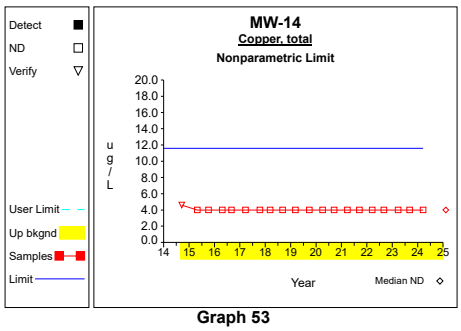

Graph 50



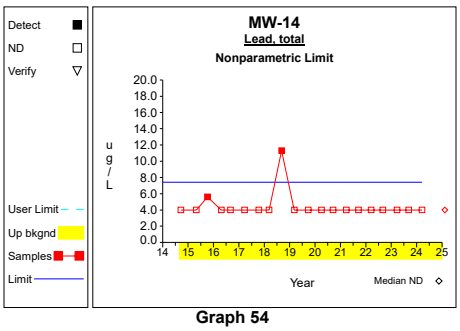

Graph 51



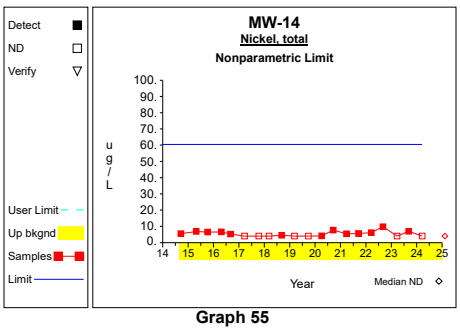

Graph 52



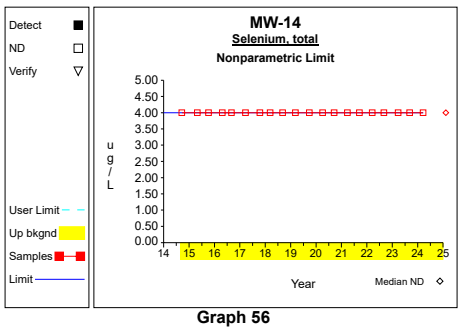

Graph 53



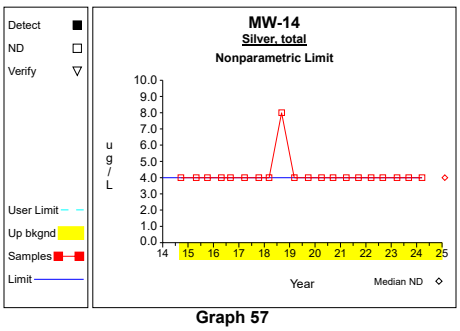

Graph 54



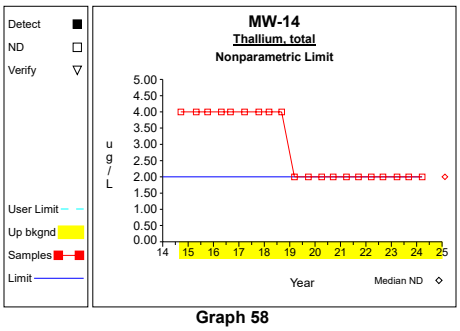

Graph 55



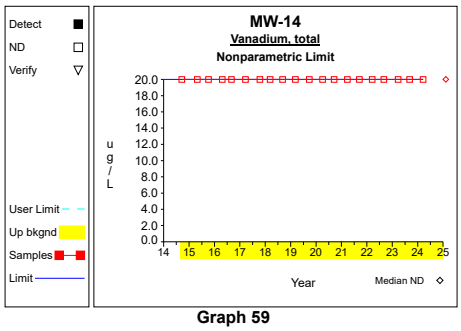

Graph 56



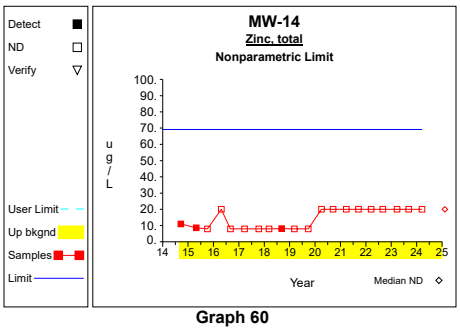

Graph 57




Graph 58




Graph 59




Graph 60

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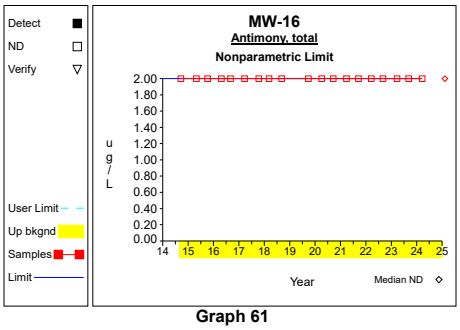
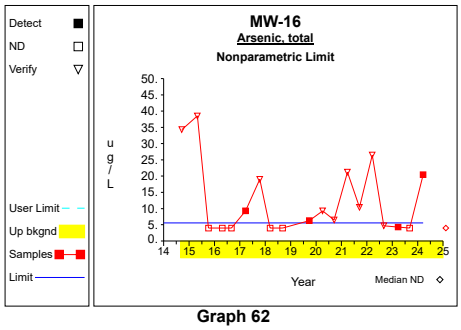
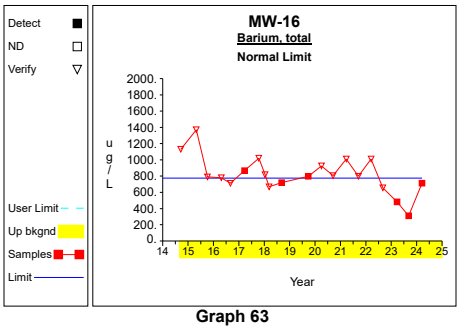
# Up vs. Down Prediction Limits



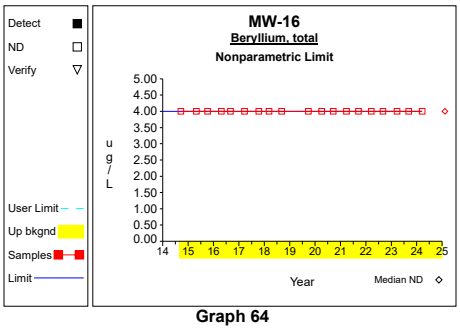

Graph 61



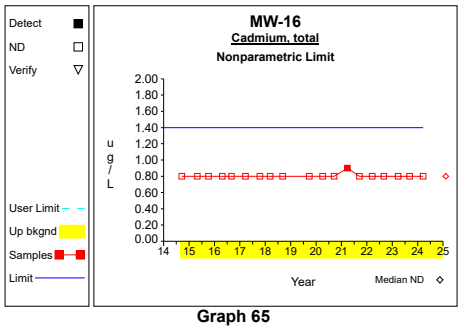

Graph 62



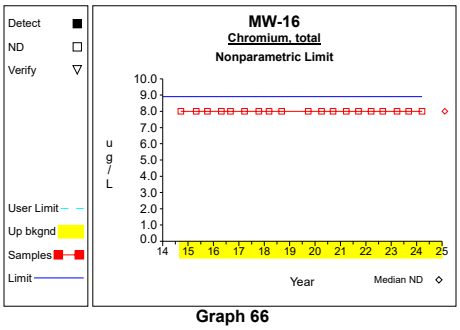

Graph 63



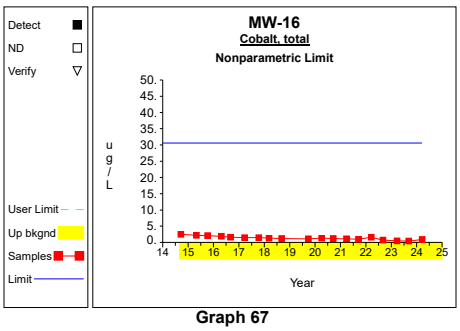

Graph 64



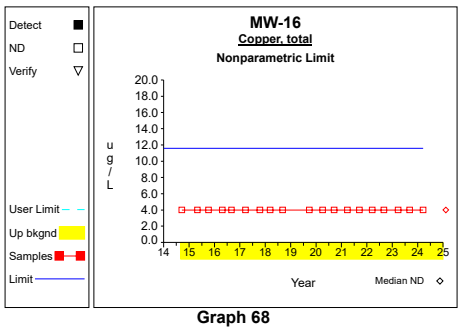

Graph 65



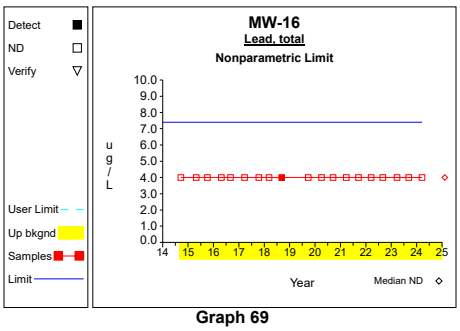

Graph 66



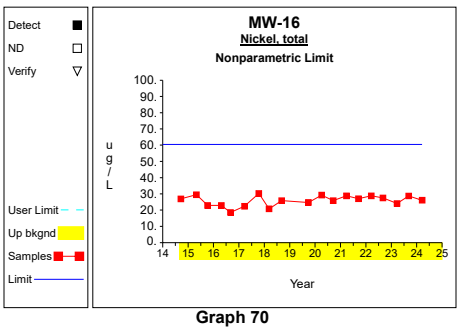

Graph 67



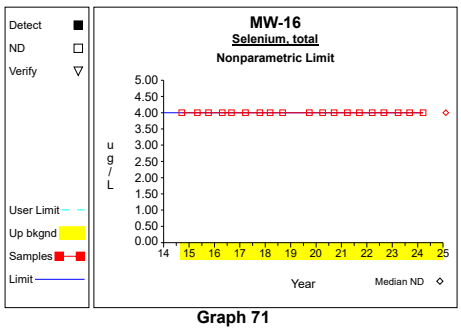

Graph 68



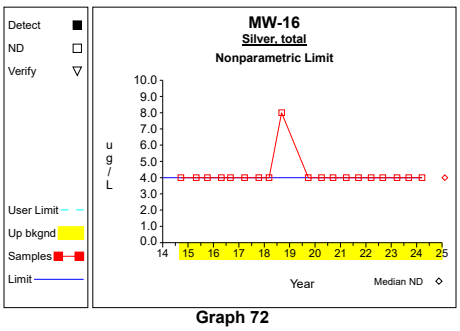

Graph 69



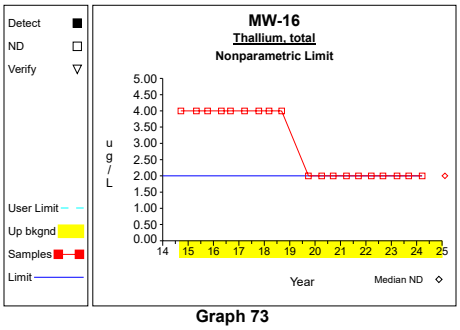

Graph 70



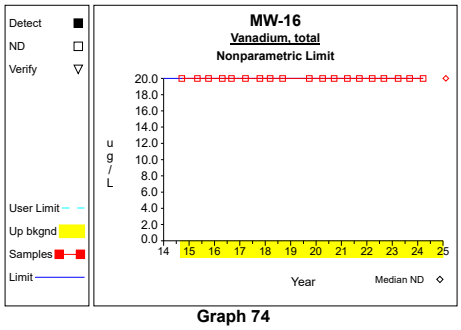

Graph 71



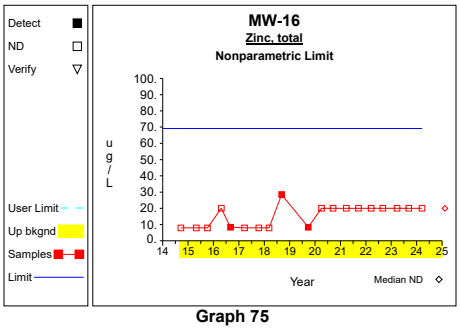

Graph 72




Graph 73




Graph 74




Graph 75

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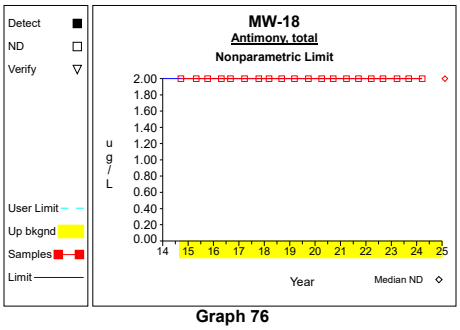
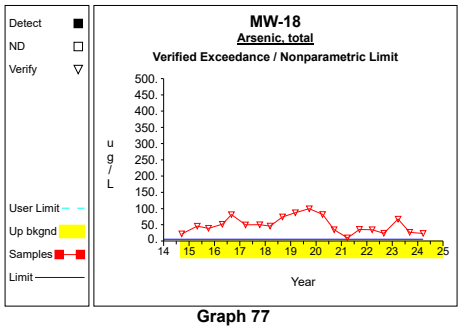
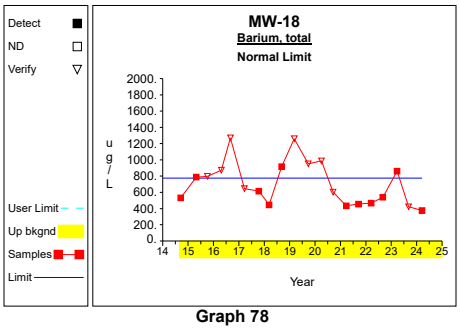
# Up vs. Down Prediction Limits



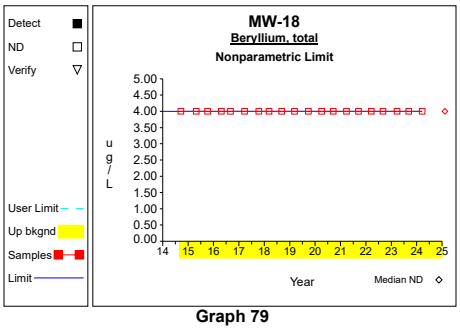

Graph 76



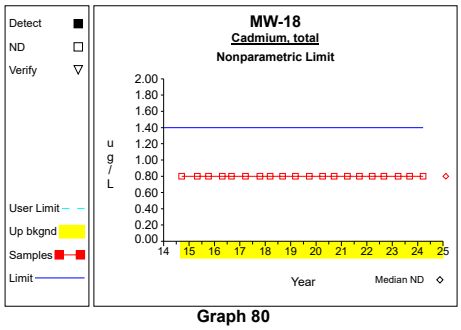

Graph 77



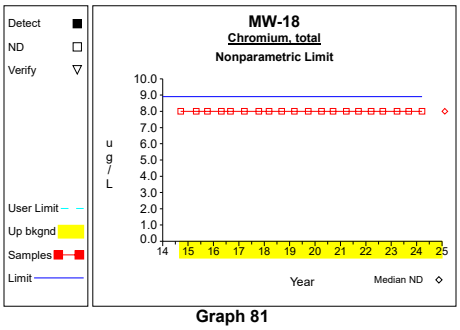

Graph 78



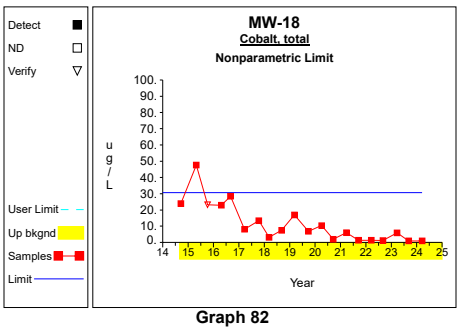

Graph 79



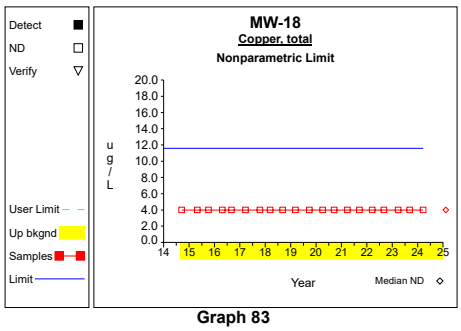

Graph 80



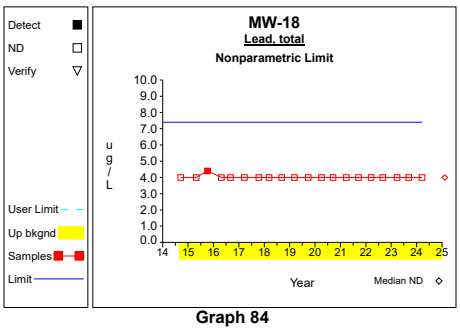

Graph 81



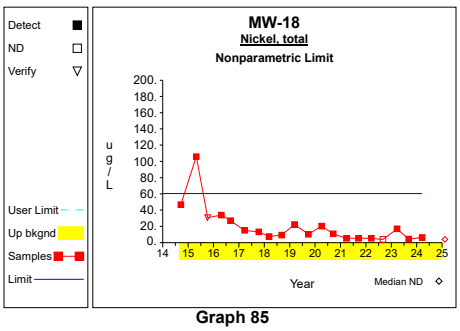

Graph 82



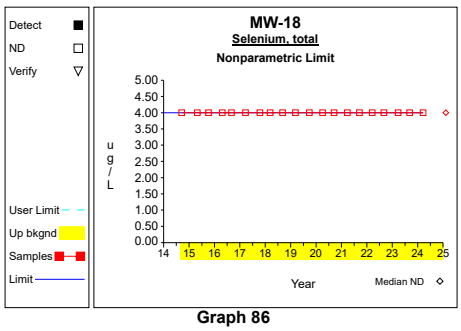

Graph 83



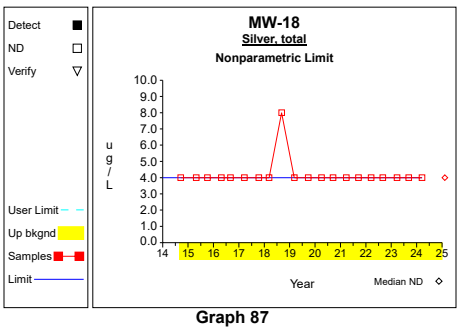

Graph 84



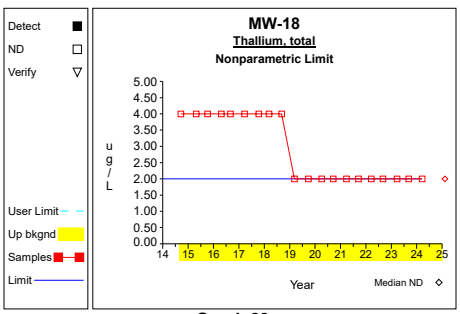

Graph 85



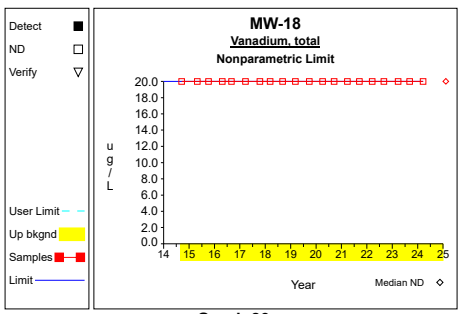

Graph 86



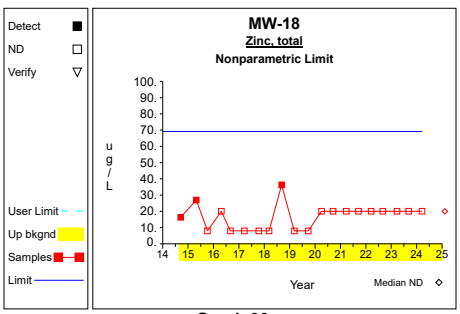

Graph 87




Graph 88




Graph 89




Graph 90

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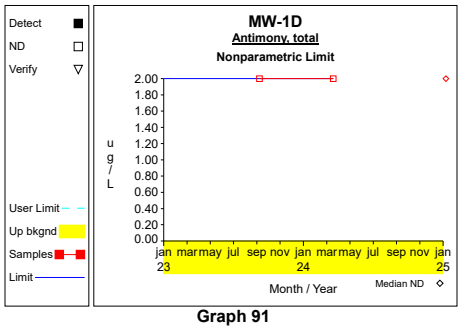
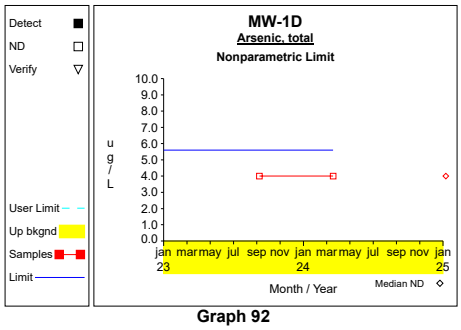
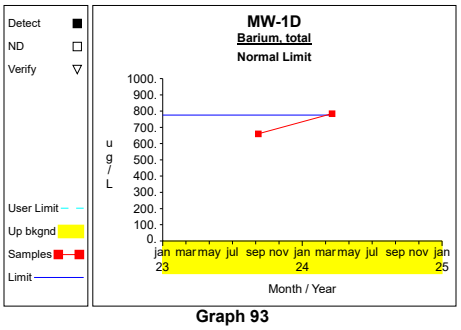
# Up vs. Down Prediction Limits



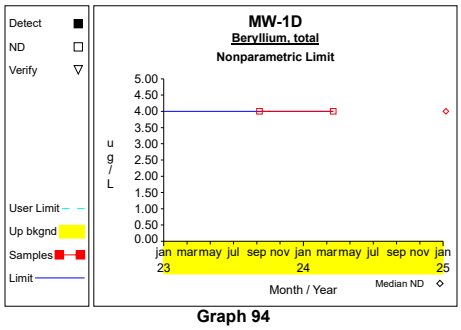

Graph 91



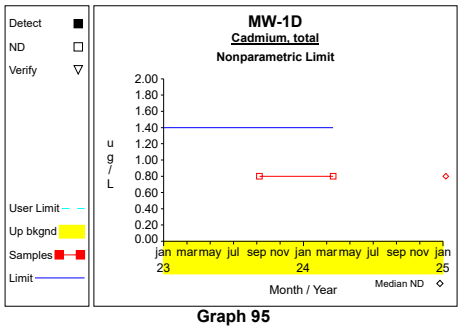

Graph 92



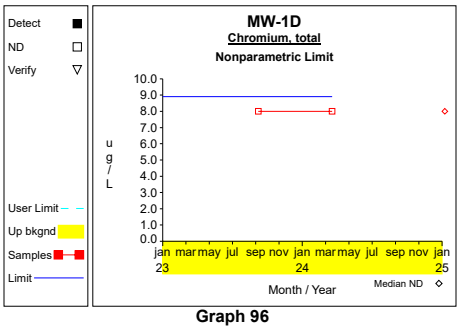

Graph 93



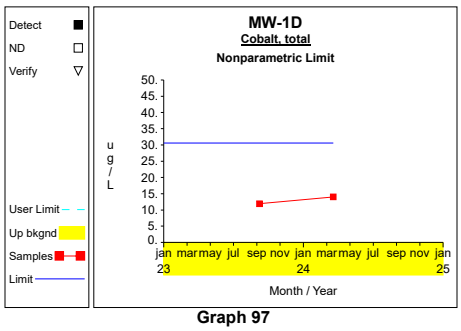

Graph 94



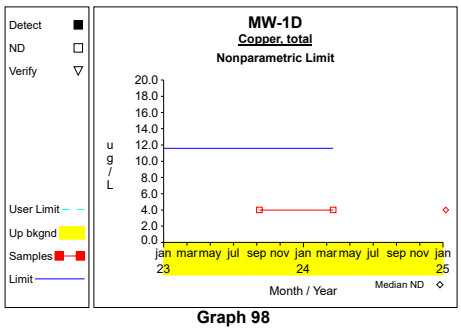

Graph 95



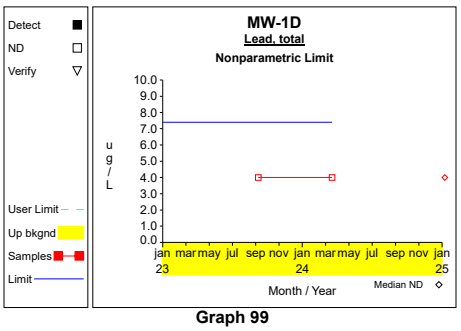

Graph 96



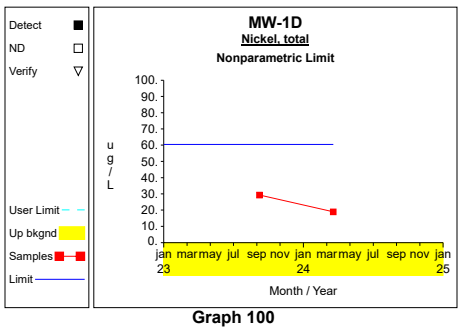

Graph 97



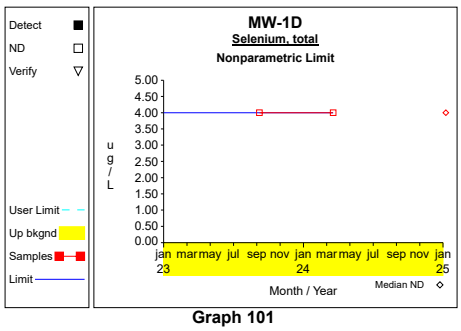

Graph 98



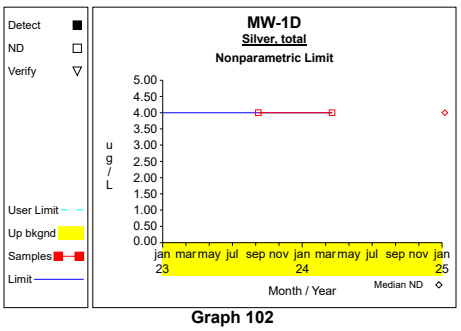

Graph 99



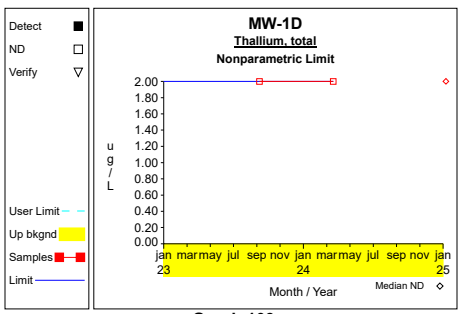

Graph 100



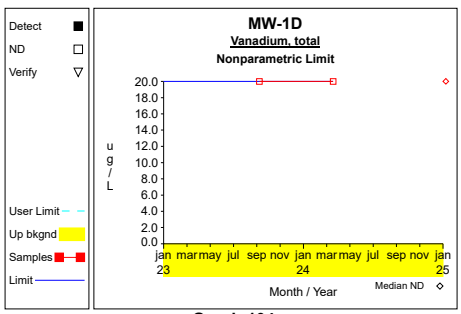

Graph 101



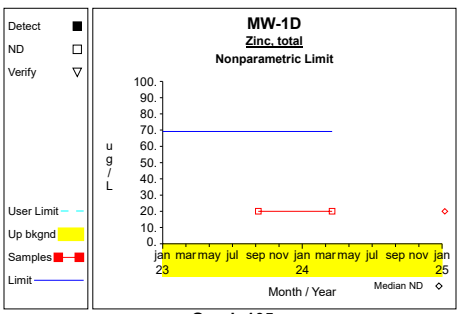

Graph 102




Graph 103




Graph 104




Graph 105

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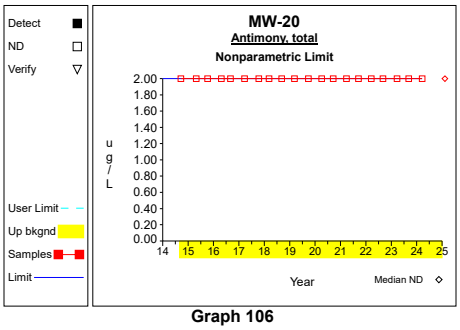
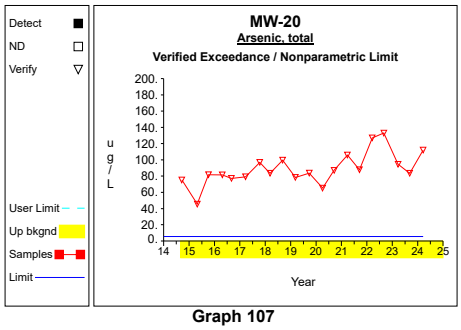
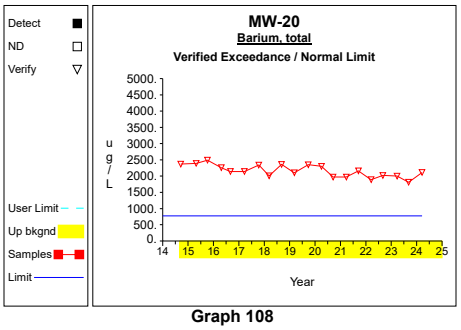
# Up vs. Down Prediction Limits



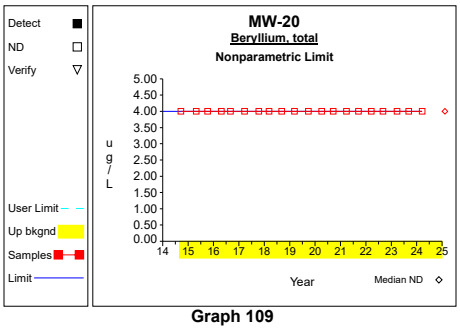

Graph 106



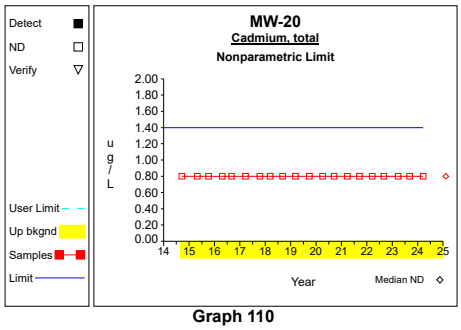

Graph 107



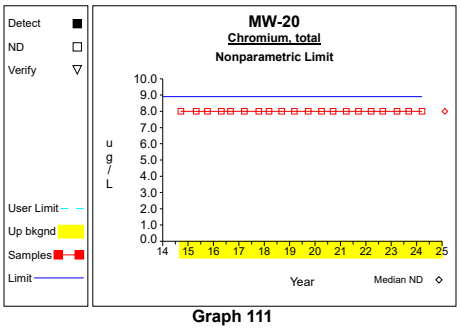

Graph 108



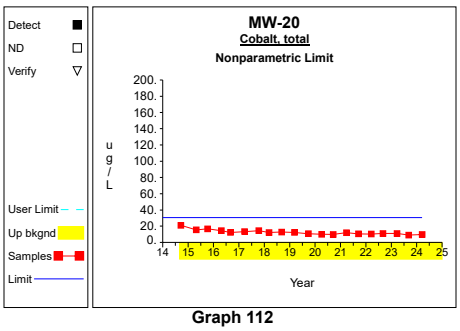

Graph 109



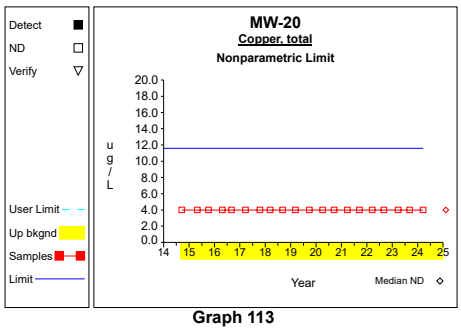

Graph 110



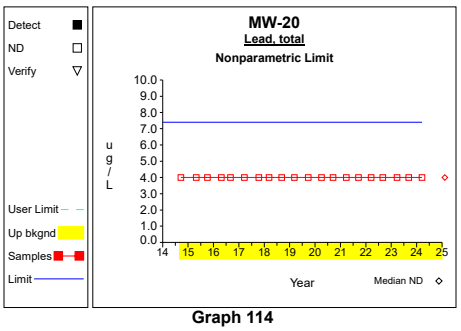

Graph 111



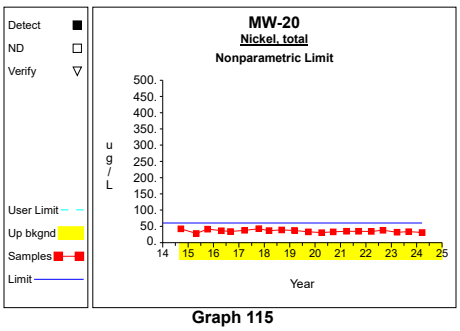

Graph 112



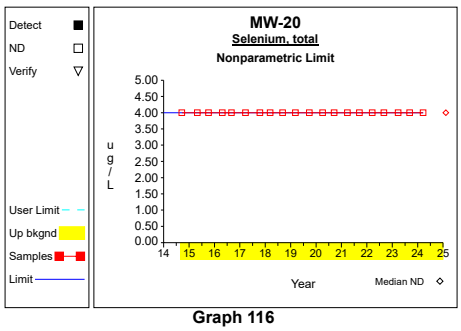

Graph 113



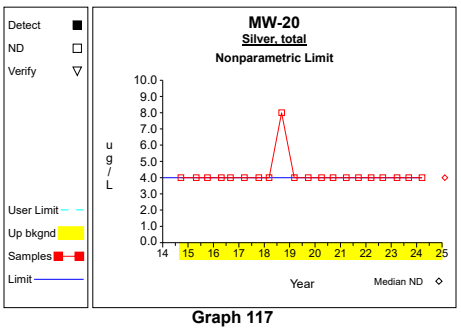

Graph 114



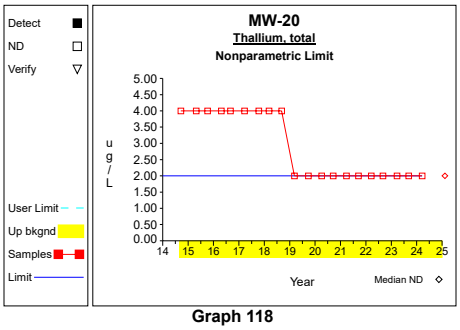

Graph 115



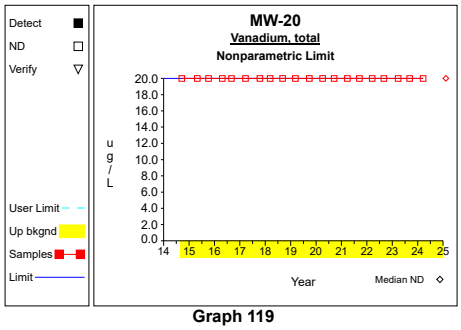

Graph 116



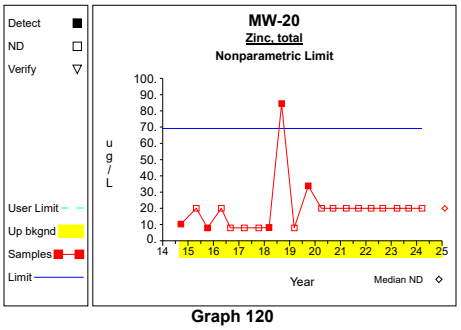

Graph 117




Graph 118



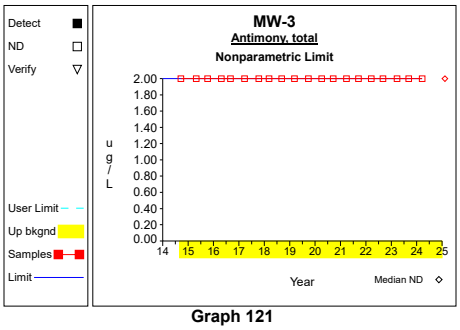

Graph 119



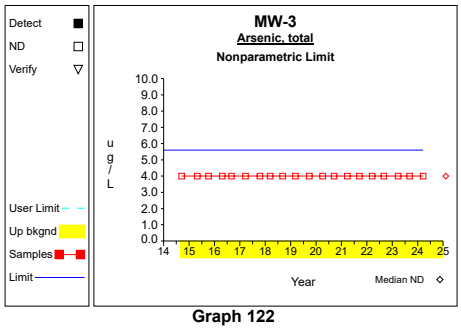

Graph 120

Prepared by: Otter Creek Environmental

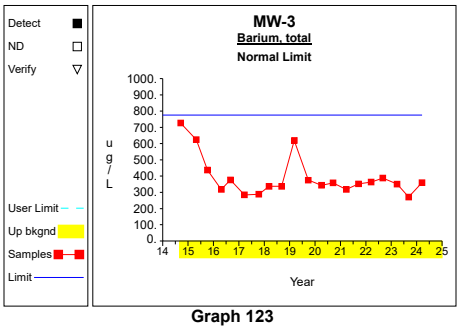
# Up vs. Down Prediction Limits



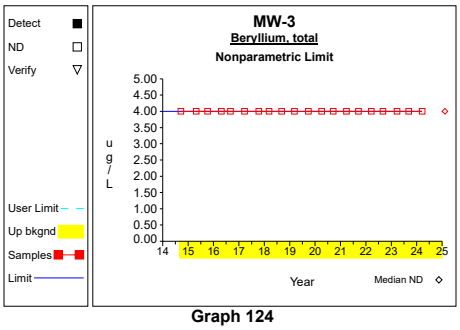

Graph 121



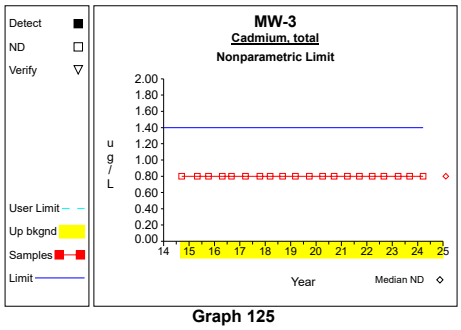

Graph 122



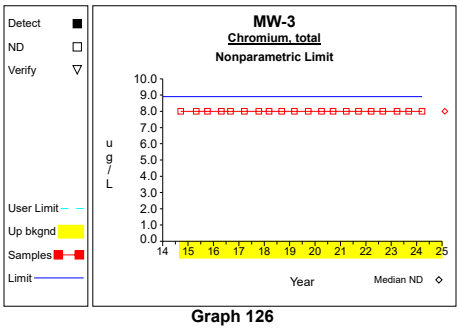

Graph 123



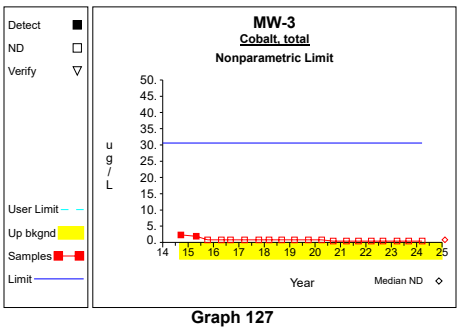

Graph 124



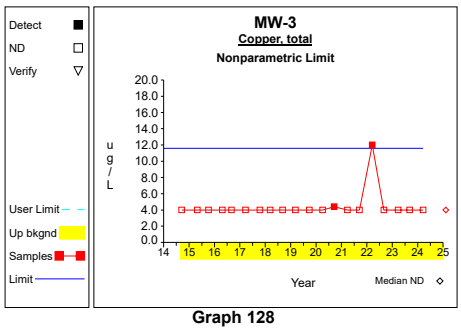

Graph 125



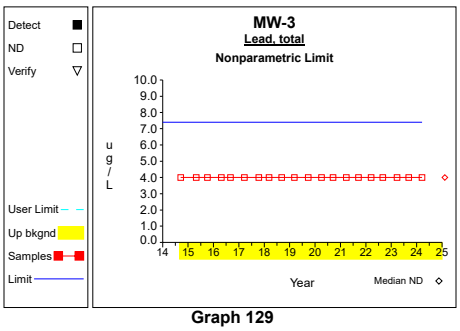

Graph 126



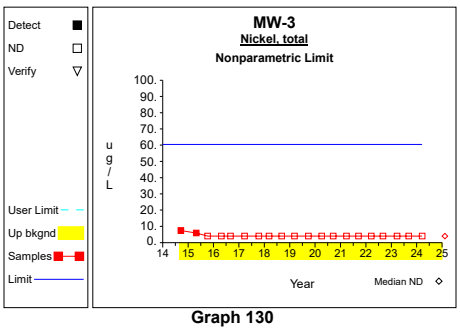

Graph 127



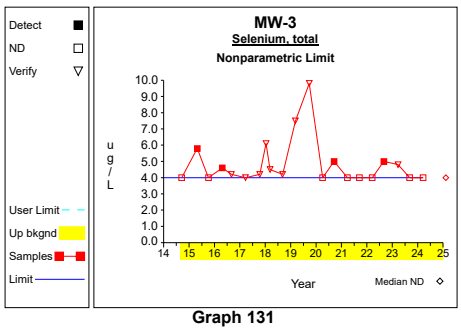

Graph 128



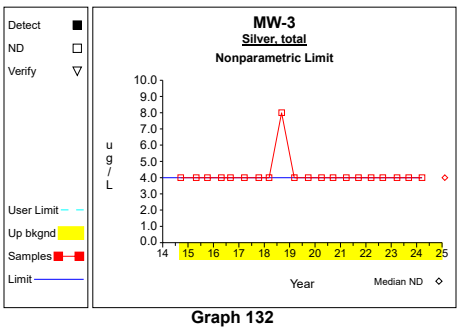

Graph 129



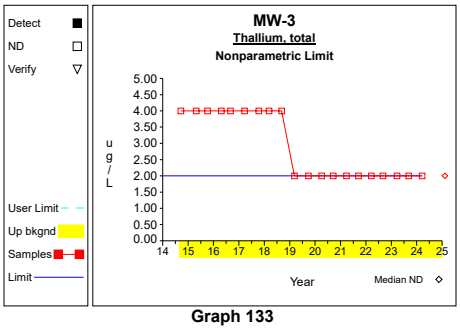

Graph 130




Graph 131




Graph 132

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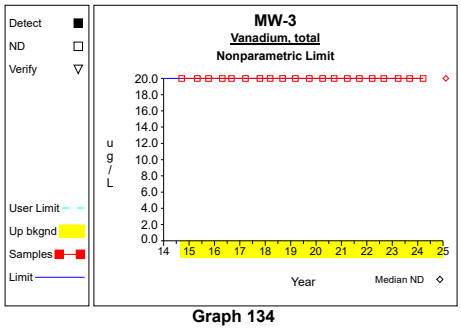
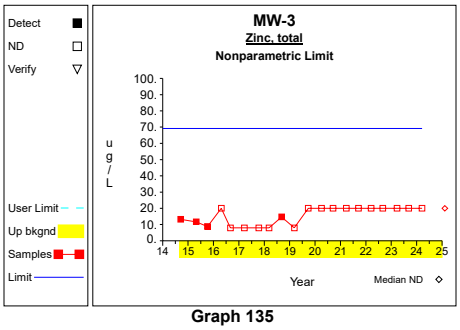


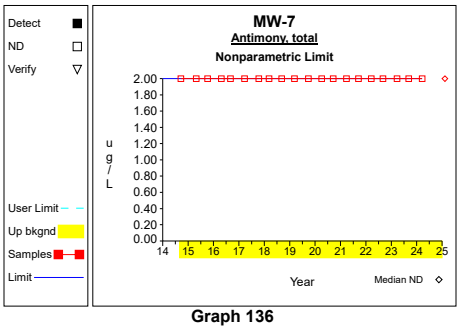

Graph 134



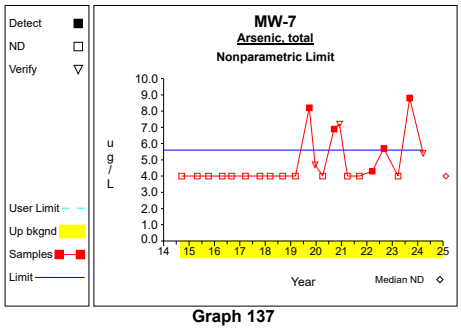

Graph 135

Prepared by: Otter Creek Environmental

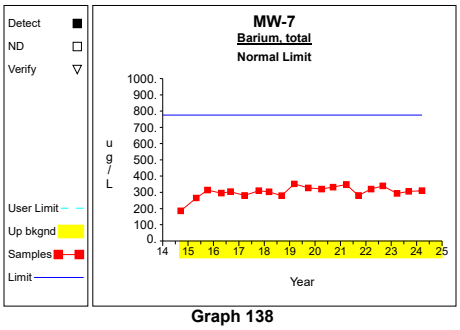
# Up vs. Down Prediction Limits



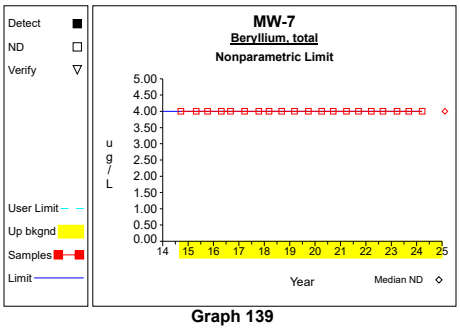

Graph 136



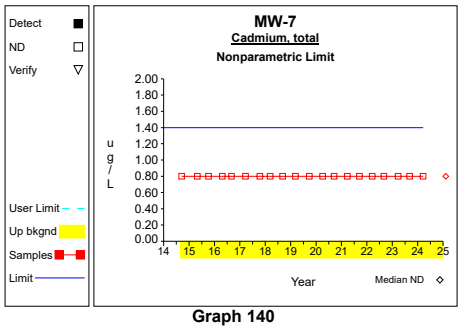

Graph 137



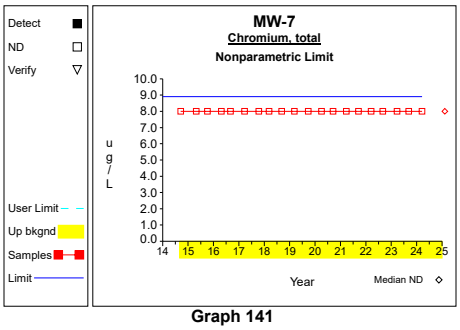

Graph 138



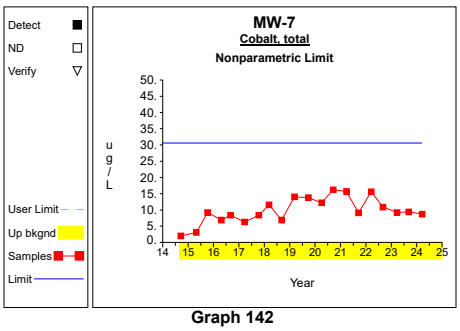

Graph 139



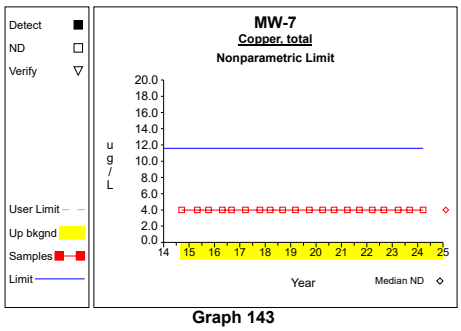

Graph 140



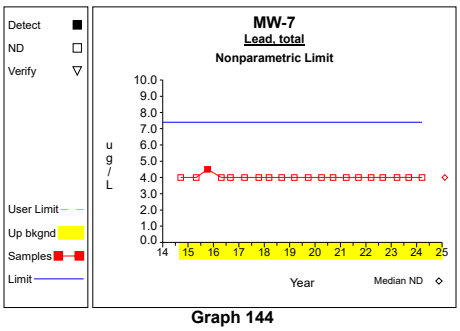

Graph 141




Graph 142




Graph 143

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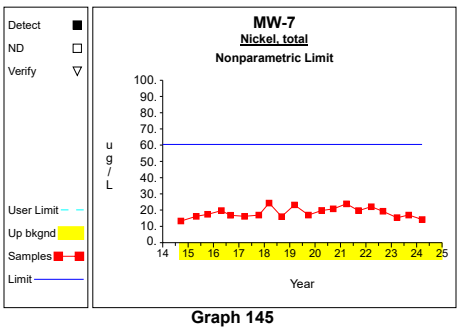
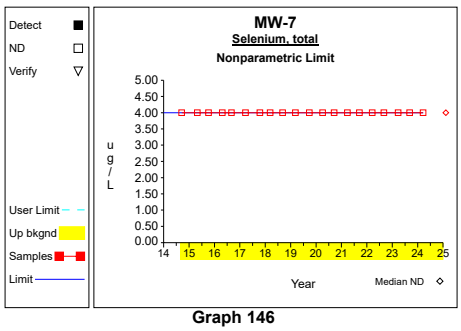
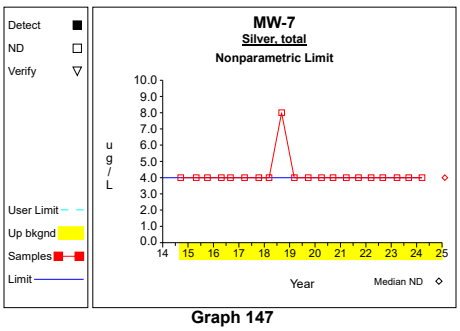


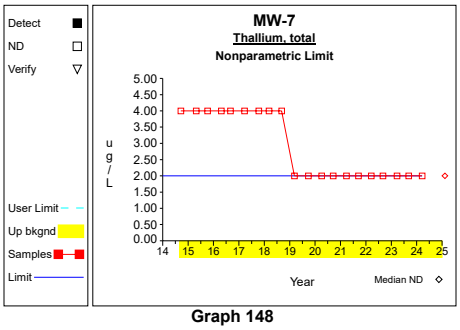

Graph 145



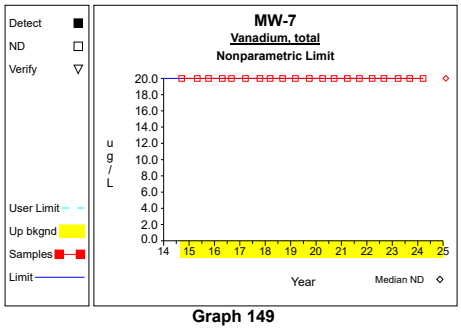

Graph 146



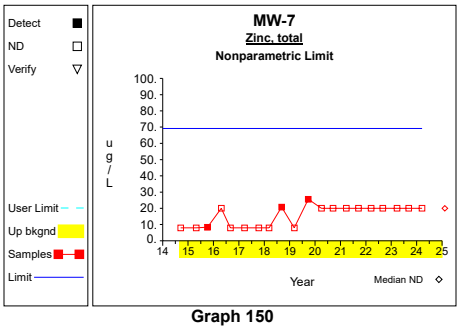

Graph 147




Graph 148




Graph 149

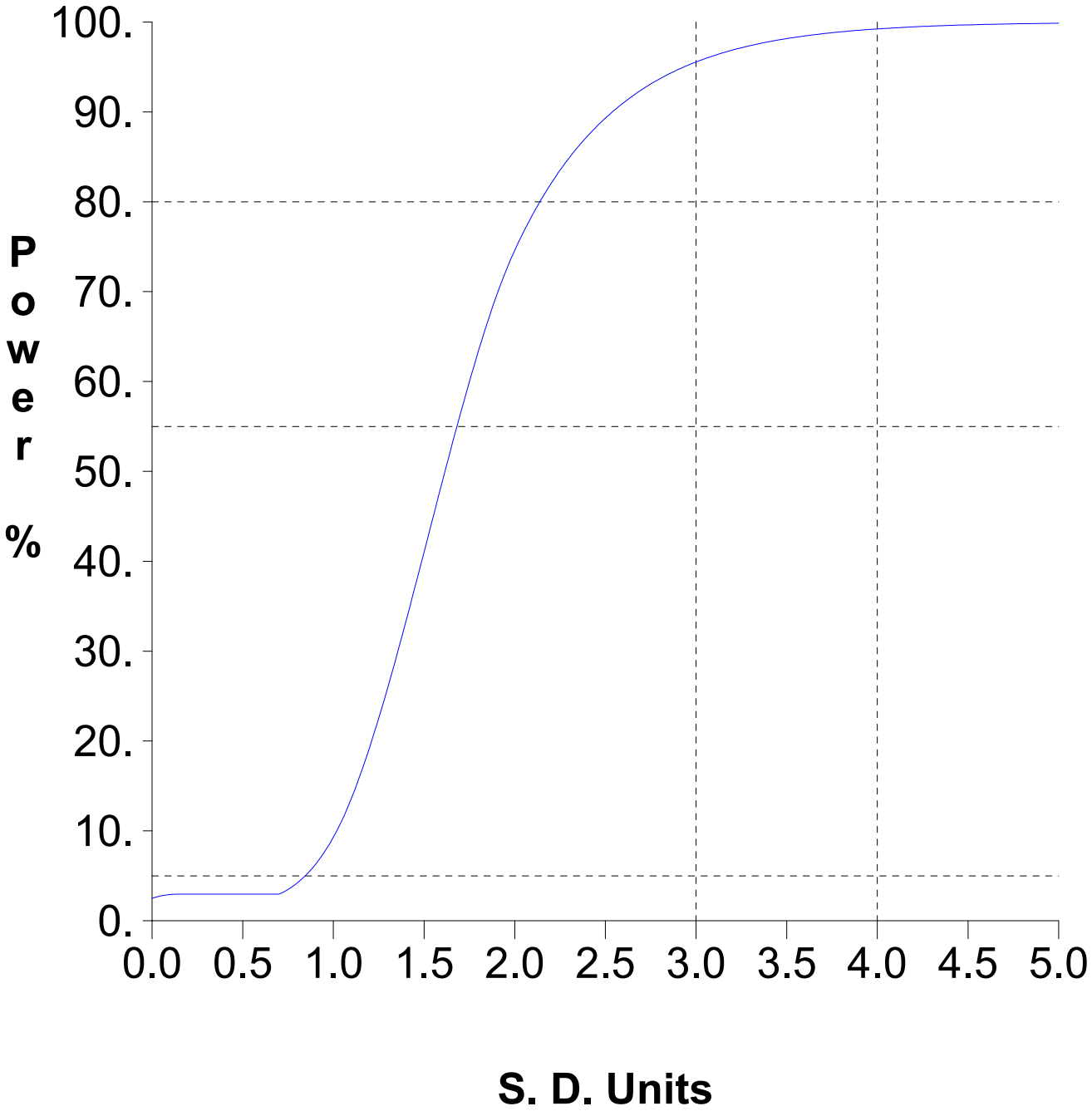



Graph 150

Prepared by: Otter Creek Environmental

# False Positive and False Negative Rates for Current

## Upgradient vs. Downgradient Monitoring Program



**Attachment C**

Assessment Statistics for Trace Metals

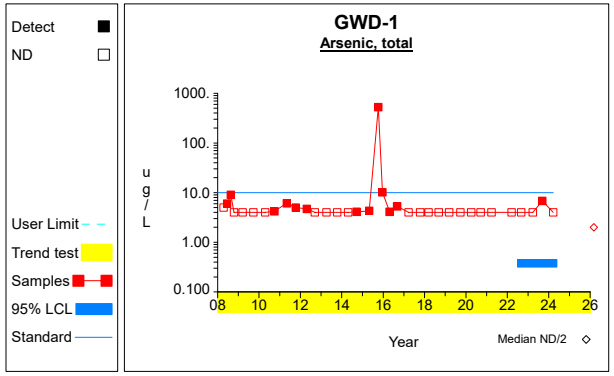
## Table 1

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

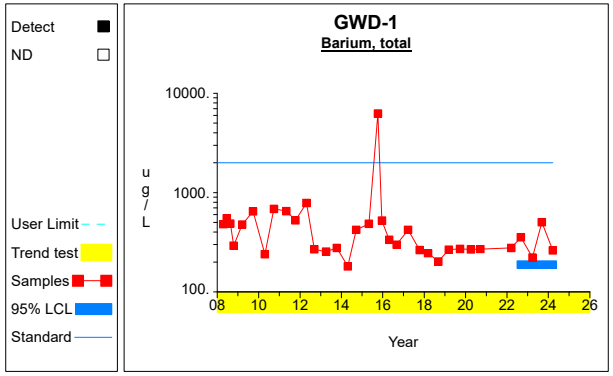
| Constituent | Units | Well | N | Mean | SD | Factor | 95% LCL | 95% UCL | Standard | Trend | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic, total | ug/L | GWD-1 | 4 | 3.200 | 2.400 | 1.176 | 0.377 | 6.023 | 10.000 | | |
| Barium, total | ug/L | GWD-1 | 4 | 335.750 | 125.242 | 1.176 | 188.429 | 483.071 | 2000.000 | | |
| Cobalt, total | ug/L | GWD-1 | 4 | 1.050 | 1.170 | 1.176 | 0.000 | 2.427 | 2.100 | | |
| Arsenic, total | ug/L | MW-10 | 4 | 2.000 | 0.000 | 1.176 | 2.000 | 2.000 | 10.000 | | |
| Barium, total | ug/L | MW-10 | 4 | 495.750 | 51.700 | 1.176 | 434.936 | 556.564 | 2000.000 | inc | |
| Cobalt, total | ug/L | MW-10 | 4 | 2.100 | 0.616 | 1.176 | 1.375 | 2.825 | 2.100 | | |
| Arsenic, total | ug/L | MW-16 | 4 | 7.850 | 8.451 | 1.176 | 0.000 | 17.791 | 10.000 | dec | |
| Barium, total | ug/L | MW-16 | 4 | 540.000 | 181.729 | 1.176 | 326.235 | 753.765 | 2000.000 | dec | |
| Cobalt, total | ug/L | MW-16 | 4 | 0.625 | 0.222 | 1.176 | 0.364 | 0.886 | 2.100 | dec | |
| Arsenic, total | ug/L | MW-18 | 4 | 35.525 | 21.298 | 1.176 | 10.473 | 60.577 | 10.000 | | ** |
| Barium, total | ug/L | MW-18 | 4 | 549.750 | 218.445 | 1.176 | 292.796 | 806.704 | 2000.000 | | |
| Cobalt, total | ug/L | MW-18 | 4 | 2.225 | 2.454 | 1.176 | 0.000 | 5.112 | 2.100 | dec | |
| Arsenic, total | ug/L | MW-20 | 4 | 105.750 | 21.645 | 1.176 | 80.290 | 131.210 | 10.000 | | ** |
| Barium, total | ug/L | MW-20 | 4 | 1985.000 | 126.095 | 1.176 | 1836.676 | 2133.324 | 2000.000 | dec | |
| Cobalt, total | ug/L | MW-20 | 4 | 10.250 | 1.012 | 1.176 | 9.060 | 11.440 | 2.100 | dec | ** |
| Arsenic, total | ug/L | MW-7 | 4 | 5.475 | 2.780 | 1.176 | 2.205 | 8.745 | 10.000 | | |
| Barium, total | ug/L | MW-7 | 4 | 312.000 | 19.408 | 1.176 | 289.171 | 334.829 | 2000.000 | inc | |
| Cobalt, total | ug/L | MW-7 | 4 | 9.550 | 0.947 | 1.176 | 8.436 | 10.664 | 2.100 | inc | ** |

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

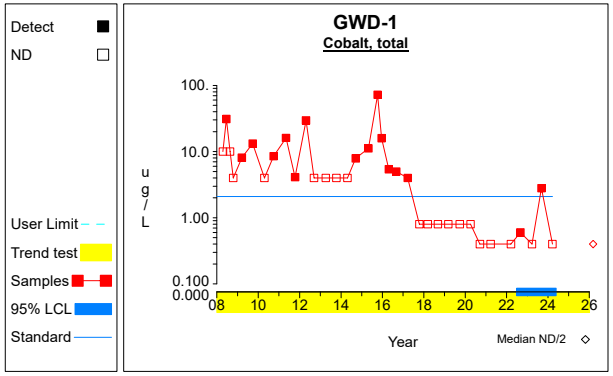
# Confidence Limits (Assessment)



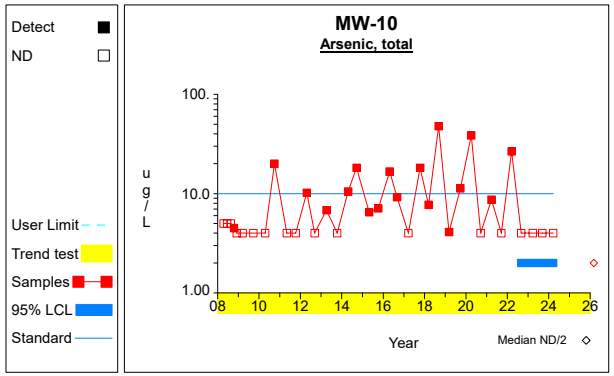

Graph 1



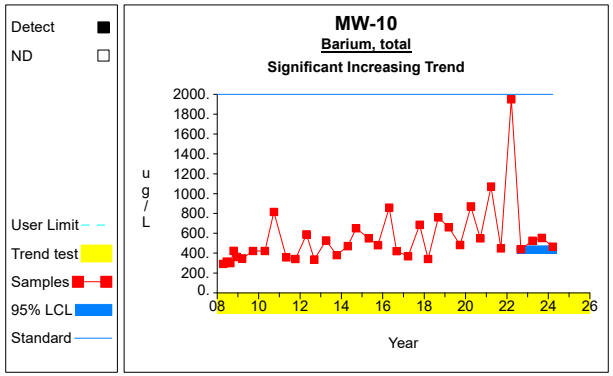

Graph 2



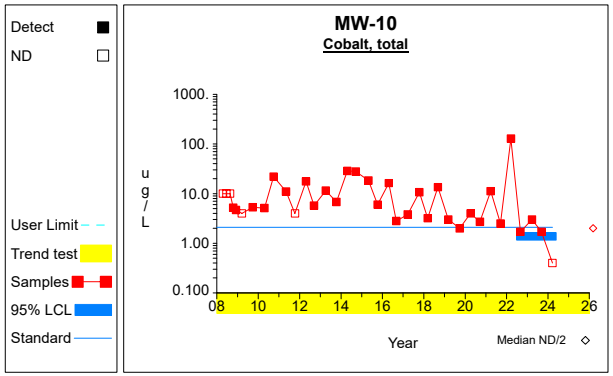

Graph 3



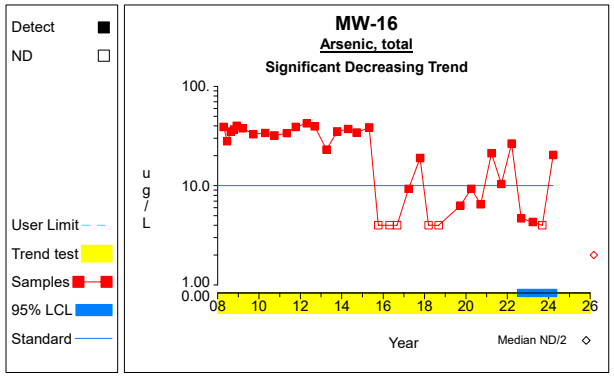

Graph 4



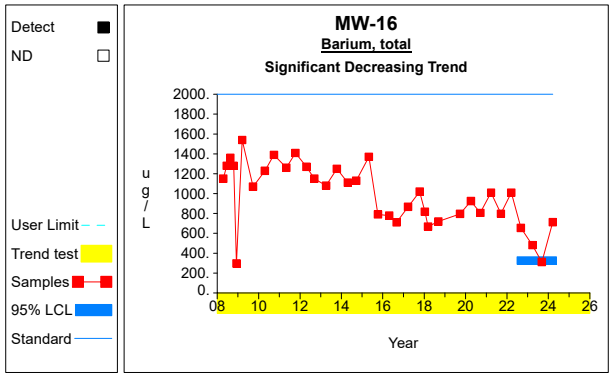

Graph 5



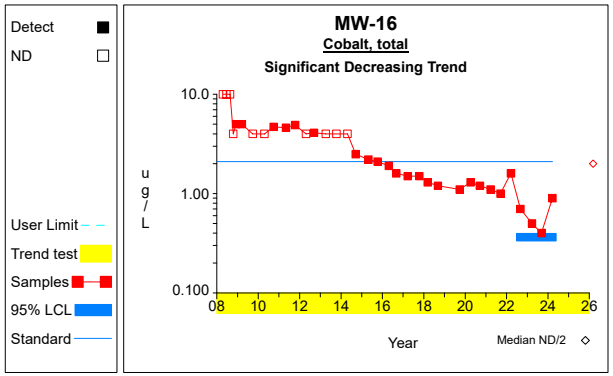

Graph 6




Graph 7



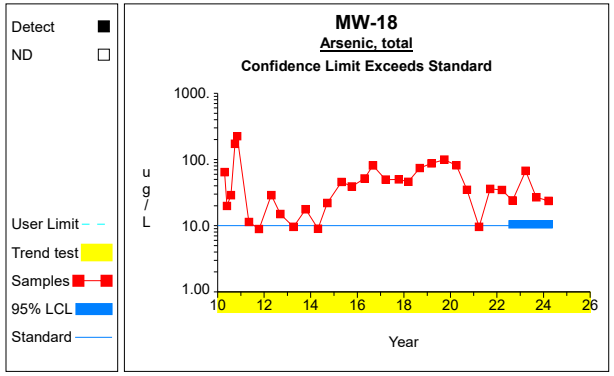

Graph 8



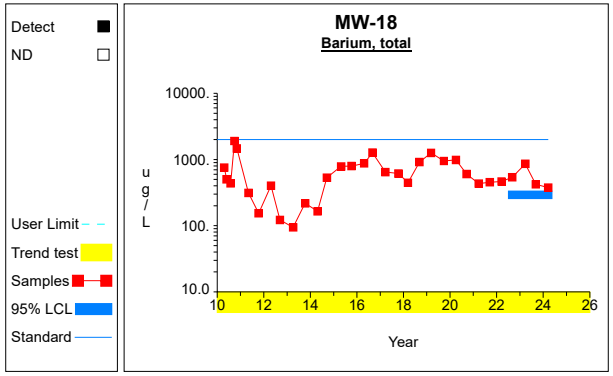

Graph 9

Prepared by: Otter Creek Environmental

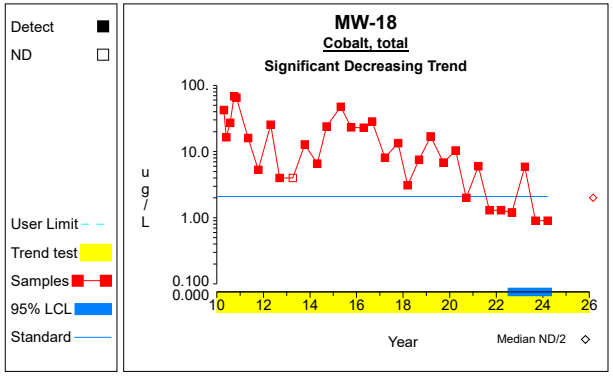
# Confidence Limits (Assessment)



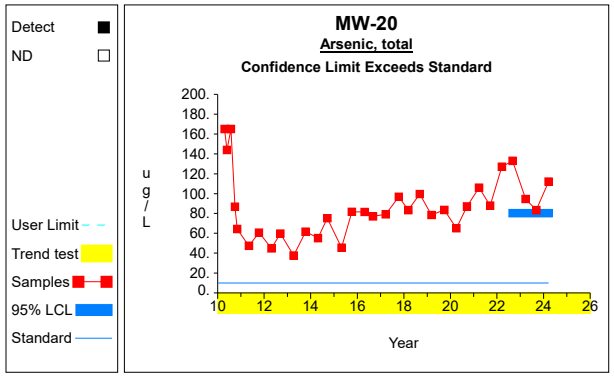

Graph 10



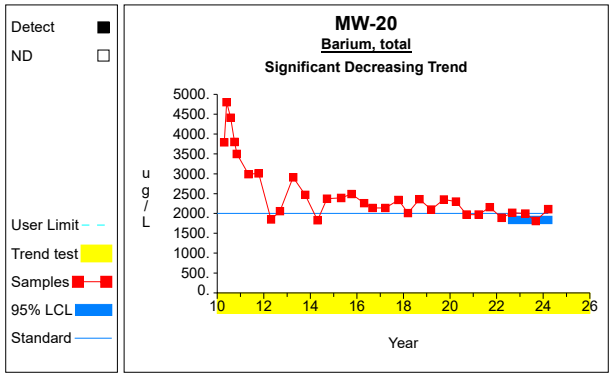

Graph 11



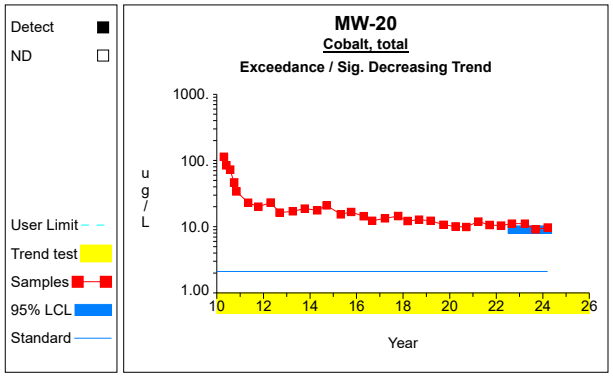

Graph 12



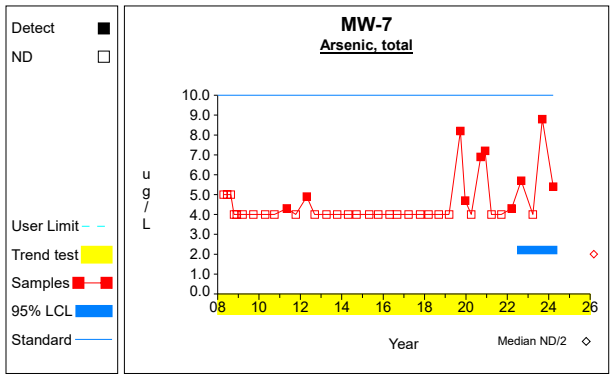

Graph 13



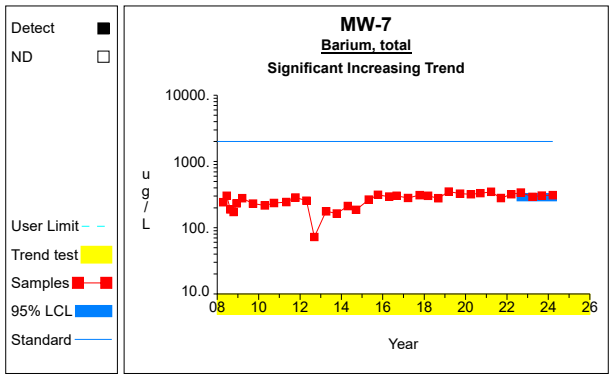

Graph 14



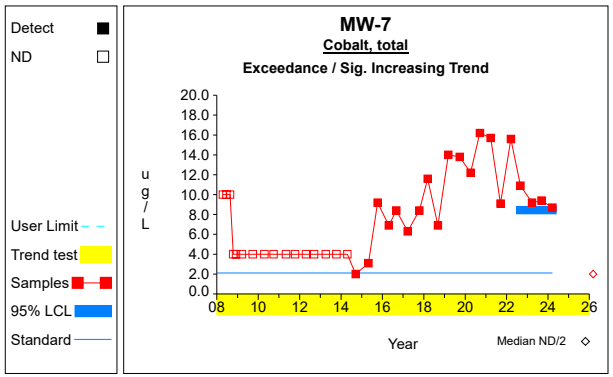

Graph 15




Graph 16




Graph 17




Graph 18

**Attachment D**

Historical VOC Detections

## Table 1

### Historical Volatile Organic Compound Detections

| Constituent | Well | Date | Identifier | Result | Limit | Units |
|---|---|---|---|---|---|---|
| Acetone | GWD-1 | 9/24/2009 | | 76.0 | 10.0 | ug/L |
| Acetone | GWD-1 | 10/13/2017 | | 20.2 | 10.0 | ug/L |
| Benzene | GWD-1 | 4/23/2012 | | 1.2 | 1.0 | ug/L |
| Chloroethane | GWD-1 | 4/23/2012 | | 3.4 | 1.0 | ug/L |
| Acetone | MW-1 | 9/17/2014 | | 11.2 | 10.0 | ug/L |
| Benzene | MW-1 | 3/25/2021 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-1 | 3/16/2022 | | 1.0 | 1.0 | ug/L |
| Benzene | MW-1 | 3/24/2023 | | 1.7 | 1.0 | ug/L |
| Benzene | MW-1 | 5/09/2023 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-1 | 9/17/2014 | | 1.4 | 1.0 | ug/L |
| Chloroethane | MW-1 | 3/25/2021 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-1 | 3/24/2023 | | 1.3 | 1.0 | ug/L |
| Chloroethane | MW-1 | 5/09/2023 | | 1.3 | 1.0 | ug/L |
| Trichloroethylene | MW-1 | 9/16/2021 | | 3 | 1 | ug/L |
| Acetone | MW-10 | 10/10/2011 | | 13.5 | 10.0 | ug/L |
| Acetone | MW-10 | 9/17/2014 | | 18.8 | 10.0 | ug/L |
| Acetone | MW-10 | 10/13/2017 | | 18.7 | 10.0 | ug/L |
| Acetone | MW-10 | 9/06/2018 | | 11.3 | 10.0 | ug/L |
| Acetone | MW-10 | 3/25/2021 | | 10.7 | 10.0 | ug/L |
| Benzene | MW-10 | 9/06/2018 | | 1.4 | 1.0 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-10 | 9/06/2018 | | 8 | 6 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-10 | 4/02/2020 | | 14 | 6 | ug/L |
| Acetone | MW-11 | 10/13/2017 | | 12.1 | 10.0 | ug/L |
| Acetone | MW-13 | 10/13/2017 | | 16.9 | 10.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/16/2008 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 6/17/2008 | | 2.2 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 8/20/2008 | | 1.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 10/16/2008 | | 2.0 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 12/04/2008 | | 1.4 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/16/2009 | | 1.4 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 9/24/2009 | | 1.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/19/2010 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 5/03/2011 | | 1.7 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 10/11/2011 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/23/2012 | | 1.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 9/10/2012 | | 1.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/04/2013 | | 2.2 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 10/11/2013 | | 2.1 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/23/2014 | | 2.4 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 9/18/2014 | | 2.0 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/29/2015 | | 2.2 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 10/06/2015 | | 1.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/23/2016 | | 2.5 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 9/01/2016 | | 1.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/22/2017 | | 1.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 10/13/2017 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/09/2018 | | 2.4 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/07/2019 | | 1.7 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 9/26/2019 | | 1.3 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/25/2021 | | 1.2 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/16/2022 | | 1.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/18/2024 | | 1.0 | 1.0 | ug/L |
| 1,2-dichloropropane | MW-16 | 3/16/2022 | | 1 | 1 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/10/1994 | | 2.6 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 6/09/1994 | | 2.6 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/28/2007 | | 3.8 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/27/2007 | | 3.1 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/16/2008 | | 3.5 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 6/17/2008 | | 4.1 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 8/20/2008 | | 4.1 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 10/16/2008 | | 3.2 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 12/04/2008 | | 4.9 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/16/2009 | | 4.2 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/24/2009 | | 3.0 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/19/2010 | | 3.6 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/29/2010 | | 4.2 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 5/03/2011 | | 3.6 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 10/11/2011 | | 3.4 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/23/2012 | | 2.5 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/10/2012 | | 2.7 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/04/2013 | | 2.3 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 10/11/2013 | | 2.0 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/23/2014 | | 1.7 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/29/2015 | | 1.5 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 10/06/2015 | | 2.0 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/23/2016 | | 1.6 | 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 |
|---|---|---|---|---|---|---|
| 1,4-dichlorobenzene | MW-16 | 9/01/2016 | | 2.1 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/22/2017 | | 2.6 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 10/13/2017 | | 2.0 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/09/2018 | | 1.8 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/06/2018 | | 2.7 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/07/2019 | | 3.8 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/17/2020 | | 1.8 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/25/2021 | | 1.8 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/16/2021 | | 2.2 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/16/2022 | | 2.1 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/18/2024 | | 1.8 | 1.0 | ug/L |
| Acetone | MW-16 | 10/13/2017 | | 13.1 | 10.0 | ug/L |
| Benzene | MW-16 | 9/23/1993 | | 2.4 | 2.0 | ug/L |
| Benzene | MW-16 | 3/10/1994 | | 2.1 | 2.0 | ug/L |
| Benzene | MW-16 | 4/07/1995 | | 1.3 | 1.0 | ug/L |
| Benzene | MW-16 | 10/04/1995 | | 1.3 | 1.0 | ug/L |
| Benzene | MW-16 | 9/17/1996 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 3/20/1997 | | 2.1 | 2.0 | ug/L |
| Benzene | MW-16 | 9/11/1997 | | 2.8 | 2.0 | ug/L |
| Benzene | MW-16 | 3/18/1999 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 9/01/1999 | | 2.3 | 2.0 | ug/L |
| Benzene | MW-16 | 4/04/2000 | | 1.7 | 1.0 | ug/L |
| Benzene | MW-16 | 9/28/2000 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-16 | 3/30/2001 | | 1.8 | 1.0 | ug/L |
| Benzene | MW-16 | 10/08/2001 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 4/04/2002 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 9/16/2002 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-16 | 4/02/2003 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 9/23/2003 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 9/09/2004 | | 1.1 | 1.0 | ug/L |
| Benzene | MW-16 | 4/14/2005 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 9/30/2005 | | 1.8 | 1.0 | ug/L |
| Benzene | MW-16 | 4/05/2006 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-16 | 4/28/2007 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 9/27/2007 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 4/16/2008 | | 1.4 | 1.0 | ug/L |
| Benzene | MW-16 | 6/17/2008 | | 1.4 | 1.0 | ug/L |
| Benzene | MW-16 | 8/20/2008 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-16 | 10/16/2008 | | 1.4 | 1.0 | ug/L |
| Benzene | MW-16 | 12/04/2008 | | 1.9 | 1.0 | ug/L |
| Benzene | MW-16 | 3/16/2009 | | 1.7 | 1.0 | ug/L |
| Benzene | MW-16 | 9/24/2009 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 4/19/2010 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 9/29/2010 | | 1.7 | 1.0 | ug/L |
| Benzene | MW-16 | 5/03/2011 | | 1.3 | 1.0 | ug/L |
| Benzene | MW-16 | 10/11/2011 | | 1.3 | 1.0 | ug/L |
| Benzene | MW-16 | 4/23/2012 | | 1.0 | 1.0 | ug/L |
| Benzene | MW-16 | 9/10/2012 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 10/11/2013 | | 1.1 | 1.0 | ug/L |
| Benzene | MW-16 | 10/06/2015 | | 1.0 | 1.0 | ug/L |
| Benzene | MW-16 | 9/01/2016 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 3/22/2017 | | 1.3 | 1.0 | ug/L |
| Benzene | MW-16 | 10/13/2017 | | 1.1 | 1.0 | ug/L |
| Benzene | MW-16 | 9/06/2018 | | 1.7 | 1.0 | ug/L |
| Benzene | MW-16 | 3/07/2019 | | 2.1 | 1.0 | ug/L |
| Benzene | MW-16 | 4/02/2020 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 3/25/2021 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-16 | 9/16/2021 | | 1.3 | 1.0 | ug/L |
| Benzene | MW-16 | 3/16/2022 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 3/18/2024 | | 1.5 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/16/2008 | | 9.1 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 6/17/2008 | | 9.9 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 8/20/2008 | | 10.4 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 10/16/2008 | | 9.2 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 12/04/2008 | | 14.5 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/16/2009 | | 12.3 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/24/2009 | | 8.7 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/19/2010 | | 9.2 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/29/2010 | | 11.3 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 5/03/2011 | | 9.6 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 10/11/2011 | | 8.7 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/23/2012 | | 6.6 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/10/2012 | | 7.5 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/04/2013 | | 5.8 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 10/11/2013 | | 6.0 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/23/2014 | | 4.6 | 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 |
|---|---|---|---|---|---|---|
| Chlorobenzene | MW-16 | 9/18/2014 | | 4.3 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/29/2015 | | 4.4 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 10/06/2015 | | 4.9 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/23/2016 | | 3.5 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/01/2016 | | 6.0 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/22/2017 | | 6.4 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 10/13/2017 | | 5.1 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/09/2018 | | 4.7 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/06/2018 | | 8.1 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/07/2019 | | 9.7 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/26/2019 | | 4.8 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/02/2020 | | 8.8 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/17/2020 | | 4.7 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/25/2021 | | 5.8 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/16/2021 | | 7.3 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/16/2022 | | 5.2 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/01/2022 | | 2.1 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/24/2023 | | 3.0 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/18/2024 | | 5.2 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-16 | 9/01/2016 | | 1.1 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-16 | 10/13/2017 | | 1.2 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-16 | 3/07/2019 | | 1.4 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-16 | 3/25/2021 | | 1.3 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-16 | 3/16/2022 | | 2.1 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 10/11/2011 | | 4.0 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 4/23/2012 | | 5.0 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 9/10/2012 | | 3.6 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 4/04/2013 | | 4.3 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 10/11/2013 | | 2.9 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 4/23/2014 | | 4.3 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 9/18/2014 | | 3.6 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 4/29/2015 | | 2.6 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 10/06/2015 | | 2.9 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 4/23/2016 | | 3.2 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 9/01/2016 | | 3.6 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 3/22/2017 | | 2.2 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 10/13/2017 | | 1.6 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 3/09/2018 | | 3.0 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 3/07/2019 | | 4.6 | 1.0 | ug/L |
| Trichloroethylene | MW-16 | 9/23/1993 | | 1.8 | 1.0 | ug/L |
| Vinyl chloride | MW-16 | 6/17/2008 | | 1.0 | 1.0 | ug/L |
| Vinyl chloride | MW-16 | 9/24/2009 | | 1.6 | 1.0 | ug/L |
| Vinyl chloride | MW-16 | 3/07/2019 | | 2.5 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-18 | 4/23/2012 | | 1.3 | 1.0 | ug/L |
| Acetone | MW-18 | 10/13/2017 | | 18 | 10 | ug/L |
| Benzene | MW-18 | 10/13/2017 | | 1.6 | 1.0 | ug/L |
| Bromomethane | MW-18 | 10/11/2013 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-18 | 10/13/2017 | | 1.6 | 1.0 | ug/L |
| Methyl iodide | MW-18 | 10/11/2013 | | 1.5 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 5/04/2011 | | 1.3 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 10/10/2011 | | 1.7 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/11/2012 | | 1.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 4/05/2013 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 10/11/2013 | | 2.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 4/22/2014 | | 2.5 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/17/2014 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 10/06/2015 | | 1.3 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 4/23/2016 | | 2.2 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/01/2016 | | 1.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 3/22/2017 | | 2.2 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 10/13/2017 | | 1.0 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 3/09/2018 | | 3.1 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/06/2018 | | 3.0 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/17/2020 | | 2.3 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 3/25/2021 | | 2.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/16/2021 | | 3.4 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 3/16/2022 | | 4.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/01/2022 | | 3.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 3/24/2023 | | 3.1 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/07/2023 | | 2.9 | 1.0 | ug/L |
| Acetone | MW-19 | 10/13/2017 | | 19.8 | 10.0 | ug/L |
| Acetone | MW-19 | 9/06/2018 | | 15.9 | 10.0 | ug/L |
| Acetone | MW-19 | 9/26/2019 | | 107.0 | 10.0 | ug/L |
| Acetone | MW-19 | 9/17/2020 | | 11.2 | 10.0 | ug/L |
| Benzene | MW-19 | 3/16/2022 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-19 | 9/01/2022 | | 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

## Table 1

## Historical Volatile Organic Compound Detections

| Constituent | Well | Date | Identifier | Result | Limit | Units |
|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | MW-19 | 4/24/2012 | | 33 | 8 | ug/L |
| Chloroethane | MW-19 | 3/16/2022 | | 1.4 | 1.0 | ug/L |
| Chloroethane | MW-19 | 9/01/2022 | | 1.2 | 1.0 | ug/L |
| Chloromethane | MW-19 | 4/23/2016 | | 3.6 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 10/11/2013 | | 1.5 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 4/22/2014 | | 1.2 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 4/23/2016 | | 1.3 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 9/01/2016 | | 1.1 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 3/22/2017 | | 1.5 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 3/09/2018 | | 1.9 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 9/06/2018 | | 2.6 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 9/17/2020 | | 1.7 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 3/25/2021 | | 2.1 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 9/16/2021 | | 2.6 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 3/16/2022 | | 4.7 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 9/01/2022 | | 3.5 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 3/24/2023 | | 2.2 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 9/07/2023 | | 1.1 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-19 | 4/24/2012 | | 1 | 1 | ug/L |
| Dichlorodifluoromethane | MW-19 | 3/22/2017 | | 1 | 1 | ug/L |
| Vinyl chloride | MW-19 | 9/06/2018 | | 3.2 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 9/17/2020 | | 1.4 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 3/25/2021 | | 1.2 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 9/16/2021 | | 1.9 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 3/16/2022 | | 1.9 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 9/01/2022 | | 2.1 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 3/24/2023 | | 1.0 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 9/07/2023 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-1D | 9/07/2023 | | 1.1 | 1.0 | ug/L |
| Benzene | MW-1D | 3/18/2024 | | 1.3 | 1.0 | ug/L |
| Chlorobenzene | MW-1D | 9/07/2023 | | 1.0 | 1.0 | ug/L |
| Chlorobenzene | MW-1D | 3/18/2024 | | 1.5 | 1.0 | ug/L |
| Chloroethane | MW-1D | 3/18/2024 | | 1.1 | 1.0 | ug/L |
| Acetone | MW-20 | 10/11/2013 | | 13.0 | 10.0 | ug/L |
| Acetone | MW-20 | 4/23/2014 | | 18.8 | 10.0 | ug/L |
| Acetone | MW-20 | 3/16/2022 | | 57.2 | 10.0 | ug/L |
| Benzene | MW-20 | 9/29/2010 | | 1.0 | 1.0 | ug/L |
| Benzene | MW-20 | 5/04/2011 | | 1.1 | 1.0 | ug/L |
| Benzene | MW-20 | 10/11/2011 | | 1.4 | 1.0 | ug/L |
| Benzene | MW-20 | 9/11/2012 | | 2.3 | 1.0 | ug/L |
| Benzene | MW-20 | 4/05/2013 | | 1.8 | 1.0 | ug/L |
| Benzene | MW-20 | 10/11/2013 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-20 | 4/23/2014 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-20 | 9/18/2014 | | 1.9 | 1.0 | ug/L |
| Benzene | MW-20 | 4/28/2015 | | 1.9 | 1.0 | ug/L |
| Benzene | MW-20 | 10/06/2015 | | 2.0 | 1.0 | ug/L |
| Benzene | MW-20 | 4/23/2016 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-20 | 9/01/2016 | | 1.8 | 1.0 | ug/L |
| Benzene | MW-20 | 3/21/2017 | | 2.6 | 1.0 | ug/L |
| Benzene | MW-20 | 10/13/2017 | | 2.0 | 1.0 | ug/L |
| Benzene | MW-20 | 3/09/2018 | | 2.9 | 1.0 | ug/L |
| Benzene | MW-20 | 9/06/2018 | | 3.6 | 1.0 | ug/L |
| Benzene | MW-20 | 3/07/2019 | | 2.5 | 1.0 | ug/L |
| Benzene | MW-20 | 9/26/2019 | | 3.1 | 1.0 | ug/L |
| Benzene | MW-20 | 4/02/2020 | | 2.8 | 1.0 | ug/L |
| Benzene | MW-20 | 3/25/2021 | | 3.3 | 1.0 | ug/L |
| Benzene | MW-20 | 9/16/2021 | | 3.0 | 1.0 | ug/L |
| Benzene | MW-20 | 3/16/2022 | | 3.8 | 1.0 | ug/L |
| Benzene | MW-20 | 9/01/2022 | | 2.6 | 1.0 | ug/L |
| Benzene | MW-20 | 3/24/2023 | | 2.6 | 1.0 | ug/L |
| Benzene | MW-20 | 9/07/2023 | | 2.0 | 1.0 | ug/L |
| Benzene | MW-20 | 3/18/2024 | | 2.2 | 1.0 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-20 | 9/16/2021 | | 8 | 6 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-20 | 3/16/2022 | | 7 | 6 | ug/L |
| Chlorobenzene | MW-20 | 9/06/2018 | | 1.2 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 4/02/2020 | | 1.0 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 9/17/2020 | | 1.2 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 3/25/2021 | | 1.1 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 9/16/2021 | | 1.1 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 3/16/2022 | | 1.1 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 9/01/2022 | | 1.1 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 9/07/2023 | | 1.0 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 3/18/2024 | | 1.2 | 1.0 | ug/L |
| Chloroethane | MW-20 | 4/19/2010 | | 1.9 | 1.0 | ug/L |
| Chloroethane | MW-20 | 5/27/2010 | | 3.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 7/28/2010 | | 3.1 | 1.0 | ug/L |

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

## Table 1

### Historical Volatile Organic Compound Detections

| Constituent | Well | Date | Identifier | Result | Limit | Units |
|---|---|---|---|---|---|---|
| Chloroethane | MW-20 | 9/29/2010 | | 4.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 11/03/2010 | | 3.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 5/04/2011 | | 4.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 10/11/2011 | | 4.3 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/11/2012 | | 4.5 | 1.0 | ug/L |
| Chloroethane | MW-20 | 4/05/2013 | | 2.3 | 1.0 | ug/L |
| Chloroethane | MW-20 | 10/11/2013 | | 3.8 | 1.0 | ug/L |
| Chloroethane | MW-20 | 4/23/2014 | | 3.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/18/2014 | | 2.1 | 1.0 | ug/L |
| Chloroethane | MW-20 | 4/28/2015 | | 2.9 | 1.0 | ug/L |
| Chloroethane | MW-20 | 10/06/2015 | | 2.3 | 1.0 | ug/L |
| Chloroethane | MW-20 | 4/23/2016 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-20 | 3/21/2017 | | 2.4 | 1.0 | ug/L |
| Chloroethane | MW-20 | 10/13/2017 | | 2.3 | 1.0 | ug/L |
| Chloroethane | MW-20 | 3/09/2018 | | 2.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/06/2018 | | 2.8 | 1.0 | ug/L |
| Chloroethane | MW-20 | 3/07/2019 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/26/2019 | | 2.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 4/02/2020 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/17/2020 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-20 | 3/25/2021 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/16/2021 | | 1.8 | 1.0 | ug/L |
| Chloroethane | MW-20 | 3/16/2022 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/01/2022 | | 1.7 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/07/2023 | | 1.5 | 1.0 | ug/L |
| Chloroethane | MW-20 | 3/18/2024 | | 1.2 | 1.0 | ug/L |
| 1,1,1-trichloroethane | MW-3 | 9/23/1993 | | 1.1 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 4/16/2008 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 6/17/2008 | | 1.4 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 4/19/2010 | | 3.1 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 5/03/2011 | | 1.7 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 4/23/2012 | | 1.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 9/17/2014 | | 1.3 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 9/01/2016 | | 1.5 | 1.0 | ug/L |
| Acetone | MW-3 | 10/13/2017 | | 15.4 | 10.0 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-3 | 9/16/2021 | | 8 | 6 | ug/L |
| Chloromethane | MW-3 | 4/19/2010 | | 1 | 1 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 4/16/2008 | | 4.0 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 6/17/2008 | | 2.6 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 9/24/2009 | | 1.0 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 4/19/2010 | | 6.6 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 9/29/2010 | | 1.3 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 5/03/2011 | | 2.8 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 10/11/2011 | | 1.4 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 4/23/2012 | | 2.8 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 9/17/2014 | | 2.0 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 9/01/2016 | | 2.3 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-3 | 4/19/2010 | | 1.2 | 1.0 | ug/L |
| Trichloroethylene | MW-3 | 9/23/1993 | | 1.4 | 1.0 | ug/L |
| 1,1-dichloropropene | MW-7 | 3/25/2021 | | 3.7 | 1.0 | ug/L |
| 2,4,5-t | MW-7 | 3/25/2021 | | 2.0 | .5 | ug/L |
| Acetone | MW-7 | 10/13/2017 | | 12.4 | 10.0 | ug/L |
| Benzene | MW-7 | 9/16/2021 | | 1.4 | 1.0 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-7 | 9/01/2022 | | 9 | 6 | ug/L |

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

**Attachment E**

Assessment Statistics for VOCs

## Table 1

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

| Constituent | Units | Well | N | Mean | SD | Factor | 95% LCL | 95% UCL | Standard | Trend | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-dichloroethane | ug/L | MW-1 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 140.000 | | |
| 1,4-dichlorobenzene | ug/L | MW-1 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 75.000 | | |
| Benzene | ug/L | MW-1 | 4 | 1.075 | 0.665 | 1.176 | 0.293 | 1.857 | 5.000 | | |
| Bis(2-ethylhexyl) phthalate | ug/L | MW-1 | 0 | | | | | | | | * |
| Chlorobenzene | ug/L | MW-1 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 100.000 | | |
| Chloroethane | ug/L | MW-1 | 4 | 0.900 | 0.462 | 1.176 | 0.357 | 1.443 | 2800.000 | | |
| Cis-1,2-dichloroethylene | ug/L | MW-1 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 70.000 | | |
| Vinyl chloride | ug/L | MW-1 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2.000 | | |
| 1,1-dichloroethane | ug/L | MW-10 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 140.000 | | |
| 1,4-dichlorobenzene | ug/L | MW-10 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 75.000 | | |
| Benzene | ug/L | MW-10 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 5.000 | | |
| Bis(2-ethylhexyl) phthalate | ug/L | MW-10 | 4 | 5.750 | 5.500 | 1.176 | 0.000 | 12.220 | 6.000 | | |
| Chlorobenzene | ug/L | MW-10 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 100.000 | | |
| Chloroethane | ug/L | MW-10 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2800.000 | | |
| Cis-1,2-dichloroethylene | ug/L | MW-10 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 70.000 | | |
| Vinyl chloride | ug/L | MW-10 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2.000 | | |
| 1,1-dichloroethane | ug/L | MW-16 | 4 | 0.625 | 0.250 | 1.176 | 0.331 | 0.919 | 140.000 | | |
| 1,4-dichlorobenzene | ug/L | MW-16 | 4 | 0.825 | 0.650 | 1.176 | 0.060 | 1.590 | 75.000 | | |
| Benzene | ug/L | MW-16 | 4 | 0.750 | 0.500 | 1.176 | 0.162 | 1.338 | 5.000 | | |
| Bis(2-ethylhexyl) phthalate | ug/L | MW-16 | 4 | 4.000 | 0.000 | 1.176 | 4.000 | 4.000 | 6.000 | | |
| Chlorobenzene | ug/L | MW-16 | 4 | 2.700 | 1.961 | 1.176 | 0.393 | 5.007 | 100.000 | dec | |
| Chloroethane | ug/L | MW-16 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2800.000 | | |
| Cis-1,2-dichloroethylene | ug/L | MW-16 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 70.000 | | |
| Vinyl chloride | ug/L | MW-16 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2.000 | | |
| 1,1-dichloroethane | ug/L | MW-19 | 4 | 3.675 | 0.903 | 1.176 | 2.613 | 4.737 | 140.000 | inc | |
| 1,4-dichlorobenzene | ug/L | MW-19 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 75.000 | | |
| Benzene | ug/L | MW-19 | 4 | 0.800 | 0.356 | 1.176 | 0.381 | 1.219 | 5.000 | | |
| Bis(2-ethylhexyl) phthalate | ug/L | MW-19 | 4 | 11.250 | 14.500 | 1.176 | 0.000 | 28.306 | 6.000 | | |
| Chlorobenzene | ug/L | MW-19 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 100.000 | | |
| Chloroethane | ug/L | MW-19 | 4 | 0.900 | 0.469 | 1.176 | 0.348 | 1.452 | 2800.000 | | |
| Cis-1,2-dichloroethylene | ug/L | MW-19 | 4 | 2.875 | 1.563 | 1.176 | 1.037 | 4.713 | 70.000 | | |
| Vinyl chloride | ug/L | MW-19 | 4 | 1.550 | 0.532 | 1.176 | 0.924 | 2.176 | 2.000 | | |
| 1,1-dichloroethane | ug/L | MW-1D | 2 | | | | | | | | * |
| 1,4-dichlorobenzene | ug/L | MW-1D | 2 | | | | | | | | * |
| Benzene | ug/L | MW-1D | 2 | | | | | | | | * |
| Bis(2-ethylhexyl) phthalate | ug/L | MW-1D | 1 | | | | | | | | * |
| Chlorobenzene | ug/L | MW-1D | 2 | | | | | | | | * |
| Chloroethane | ug/L | MW-1D | 2 | | | | | | | | * |
| Cis-1,2-dichloroethylene | ug/L | MW-1D | 2 | | | | | | | | * |
| Vinyl chloride | ug/L | MW-1D | 2 | | | | | | | | * |
| 1,1-dichloroethane | ug/L | MW-20 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 140.000 | | |
| 1,4-dichlorobenzene | ug/L | MW-20 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 75.000 | | |
| Benzene | ug/L | MW-20 | 4 | 2.350 | 0.300 | 1.176 | 1.997 | 2.703 | 5.000 | inc | |
| Bis(2-ethylhexyl) phthalate | ug/L | MW-20 | 4 | 5.750 | 2.062 | 1.176 | 3.325 | 8.175 | 6.000 | | |
| Chlorobenzene | ug/L | MW-20 | 4 | 0.950 | 0.311 | 1.176 | 0.584 | 1.316 | 100.000 | | |
| Chloroethane | ug/L | MW-20 | 4 | 1.225 | 0.525 | 1.176 | 0.607 | 1.843 | 2800.000 | dec | |
| Cis-1,2-dichloroethylene | ug/L | MW-20 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 70.000 | | |
| Vinyl chloride | ug/L | MW-20 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2.000 | | |
| 1,1-dichloroethane | ug/L | MW-3 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 140.000 | | |

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

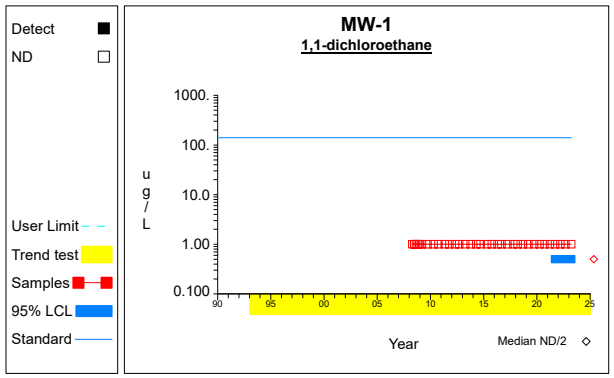
## Table 1

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

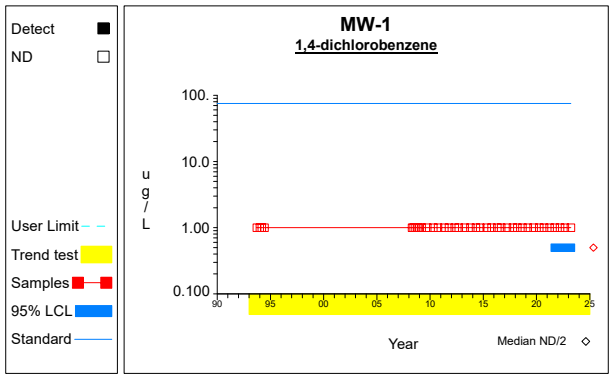
| Constituent | Units | Well | N | Mean | SD | Factor | 95% LCL | 95% UCL | Standard | Trend | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-dichlorobenzene | ug/L | MW-3 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 75.000 | | |
| Benzene | ug/L | MW-3 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 5.000 | | |
| Bis(2-ethylhexyl) phthalate | ug/L | MW-3 | 4 | 5.000 | 2.000 | 1.176 | 2.647 | 7.353 | 6.000 | | |
| Chlorobenzene | ug/L | MW-3 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 100.000 | | |
| Chloroethane | ug/L | MW-3 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2800.000 | | |
| Cis-1,2-dichloroethylene | ug/L | MW-3 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 70.000 | | |
| Vinyl chloride | ug/L | MW-3 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2.000 | | |
| 1,1-dichloroethane | ug/L | MW-7 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 140.000 | | |
| 1,4-dichlorobenzene | ug/L | MW-7 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 75.000 | | |
| Benzene | ug/L | MW-7 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 5.000 | | |
| Bis(2-ethylhexyl) phthalate | ug/L | MW-7 | 3 | | | | | | | | * |
| Chlorobenzene | ug/L | MW-7 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 100.000 | | |
| Chloroethane | ug/L | MW-7 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2800.000 | | |
| Cis-1,2-dichloroethylene | ug/L | MW-7 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 70.000 | | |
| Vinyl chloride | ug/L | MW-7 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2.000 | | |

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

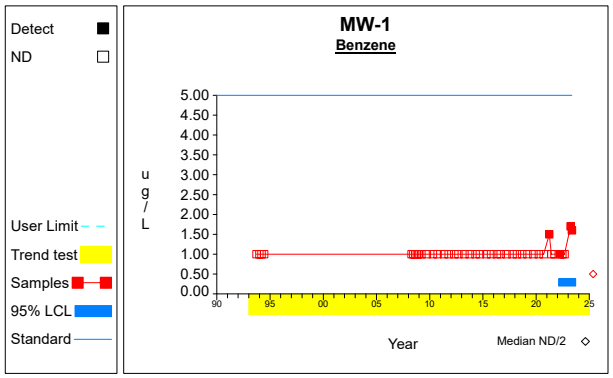
# Confidence Limits (Assessment)



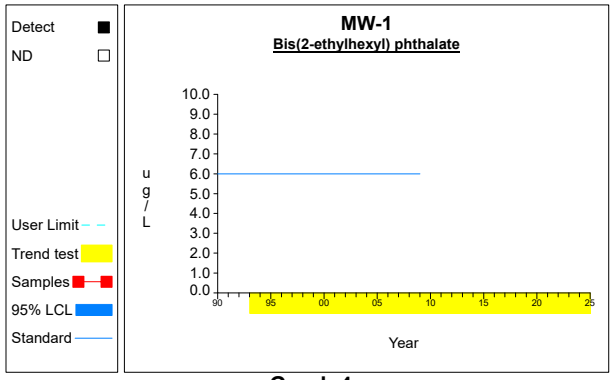

Graph 1



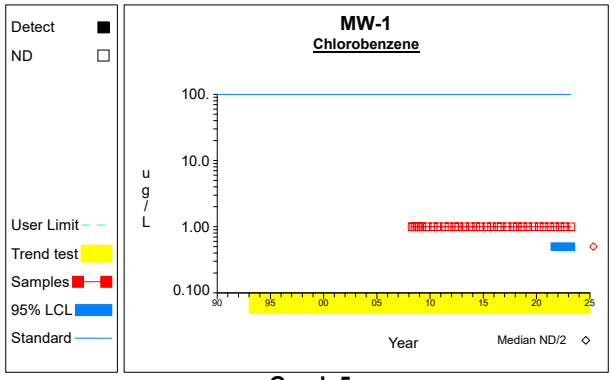

Graph 2



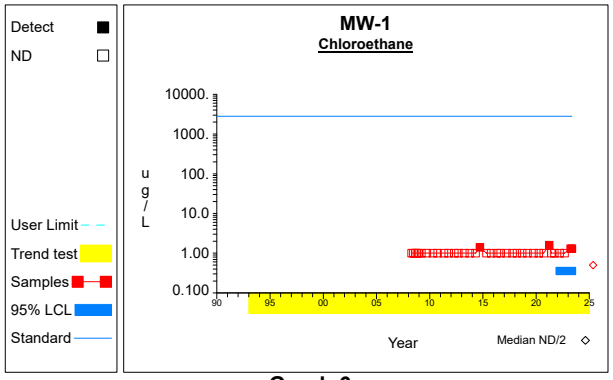

Graph 3



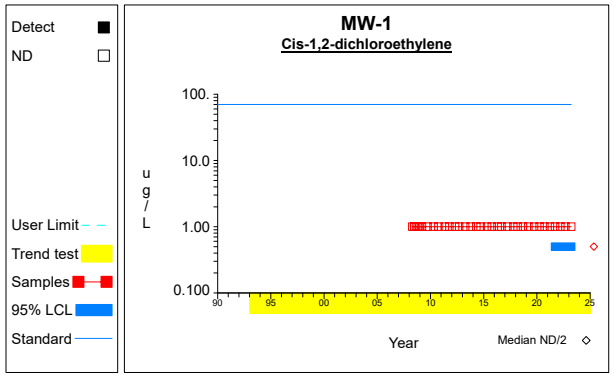

Graph 4



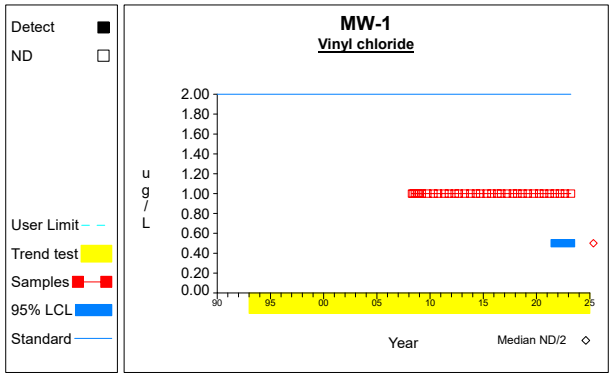

Graph 5




Graph 6




Graph 7




Graph 8

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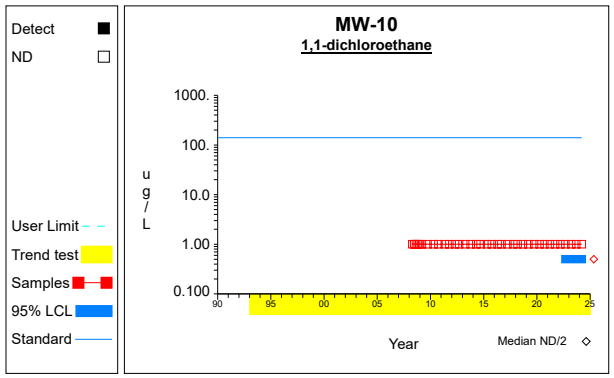
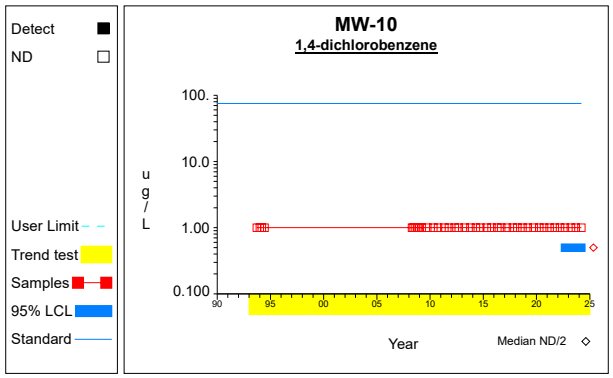
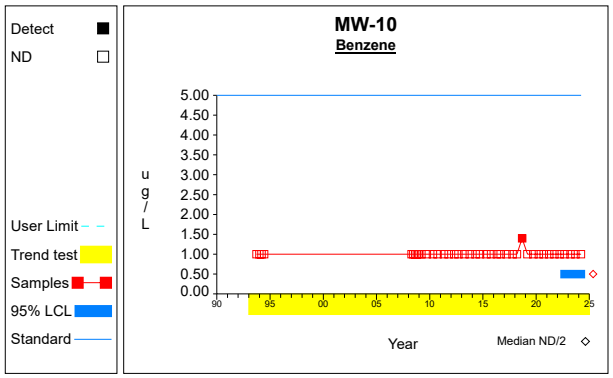
# Confidence Limits (Assessment)



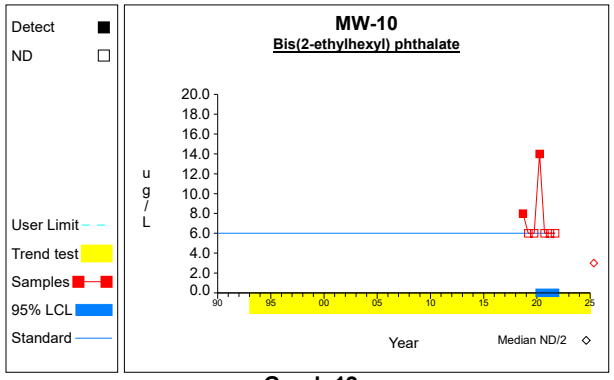

Graph 9



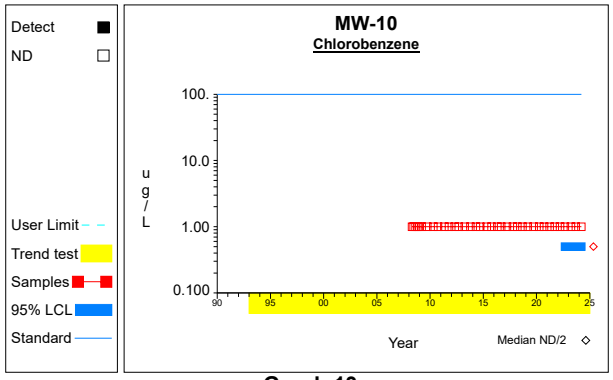

Graph 10



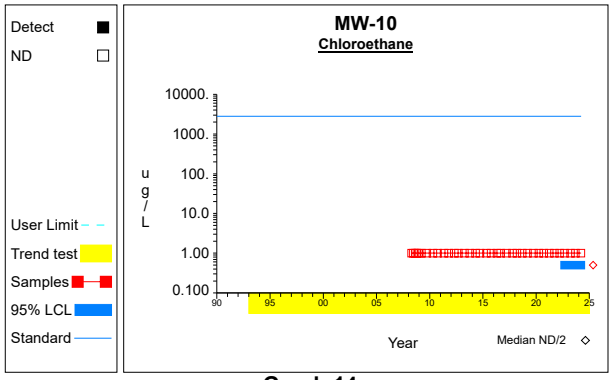

Graph 11



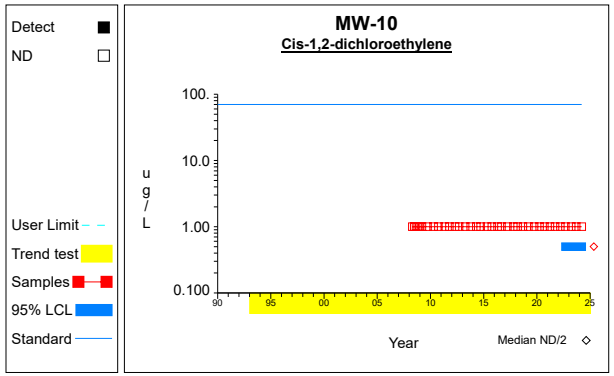

Graph 12



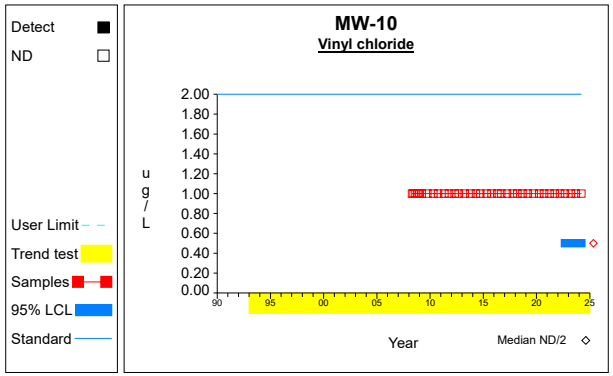

Graph 13




Graph 14




Graph 15




Graph 16

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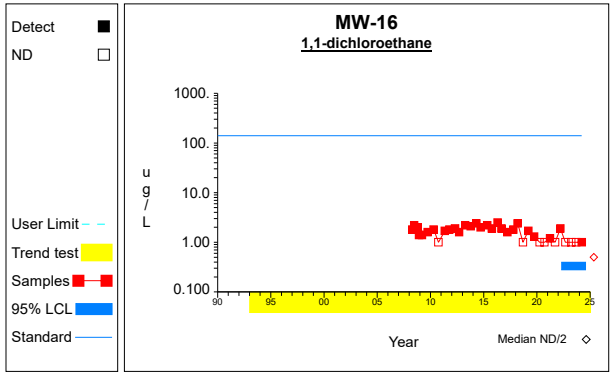
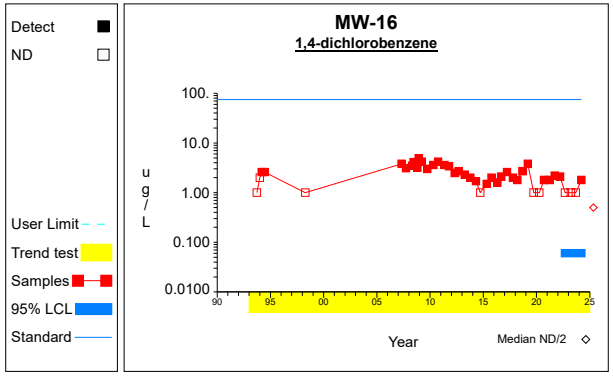
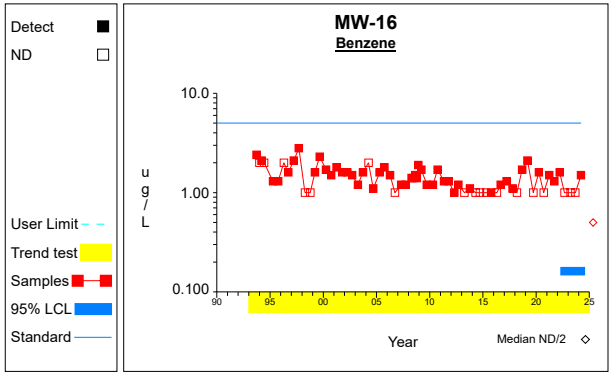
# Confidence Limits (Assessment)



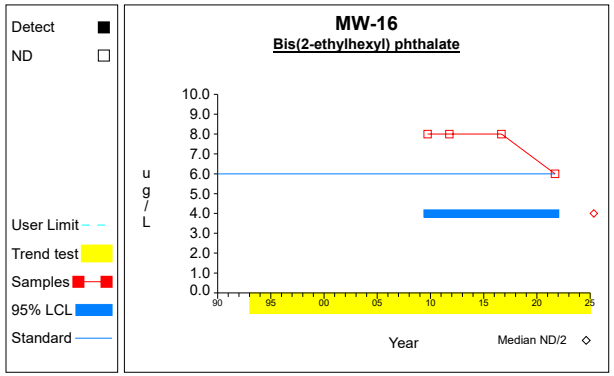

Graph 17



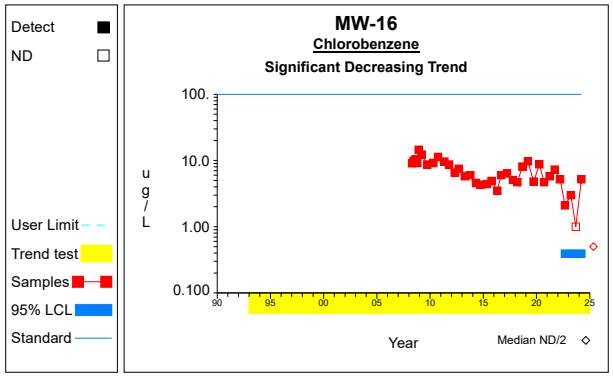

Graph 18



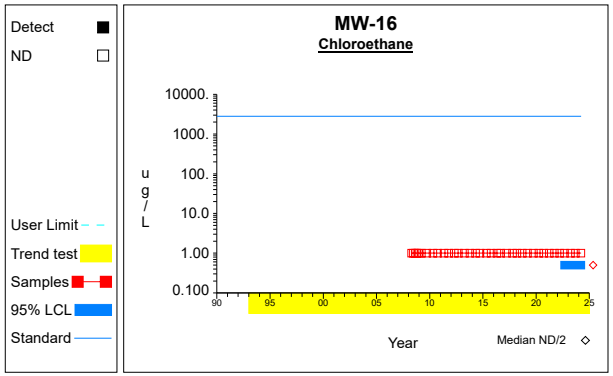

Graph 19



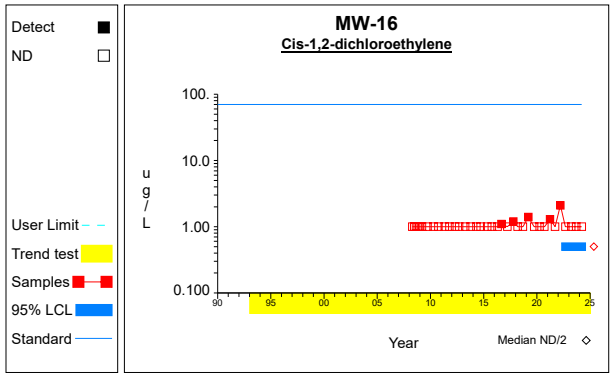

Graph 20



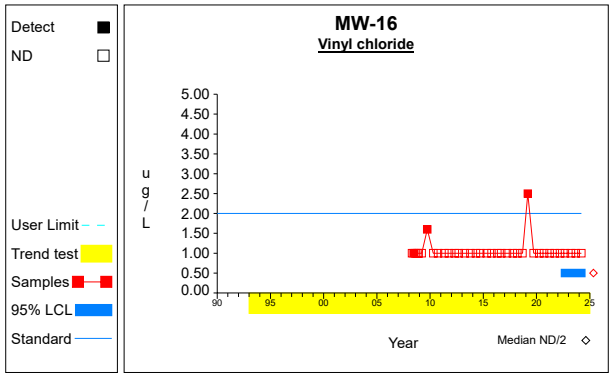

Graph 21




Graph 22




Graph 23




Graph 24

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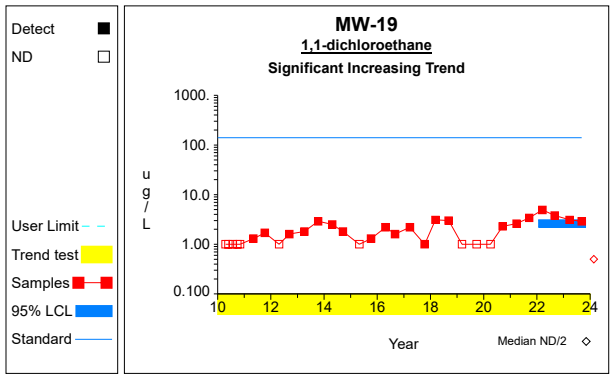
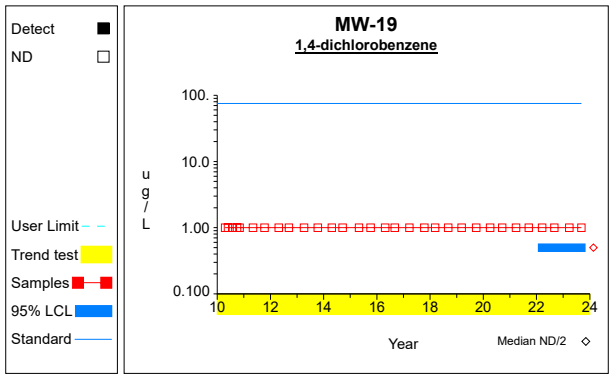
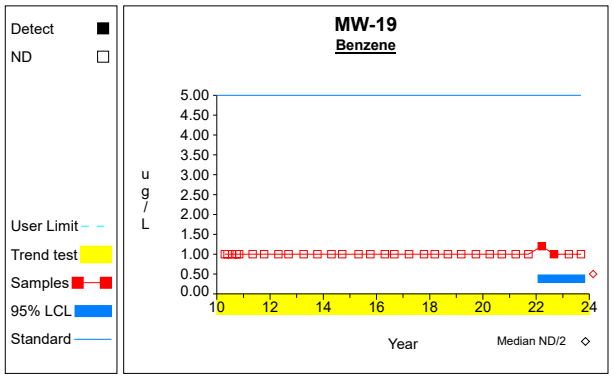
# Confidence Limits (Assessment)



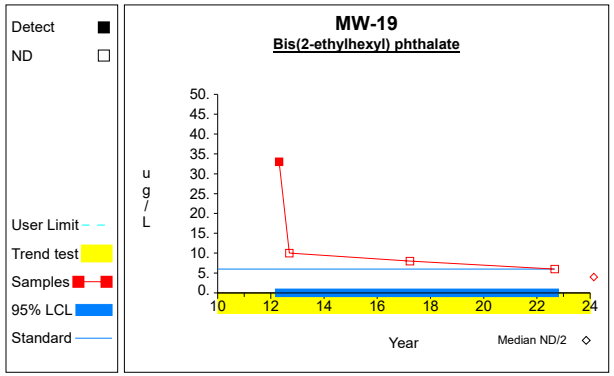

Graph 25



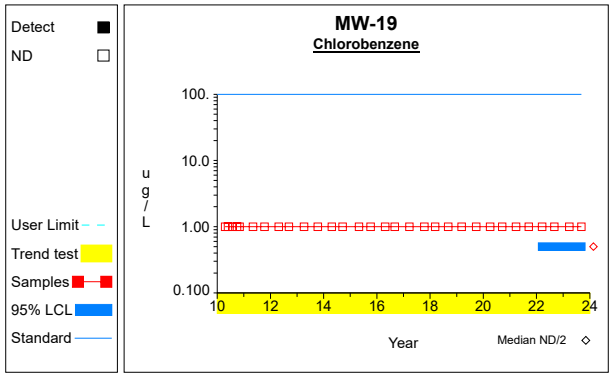

Graph 26



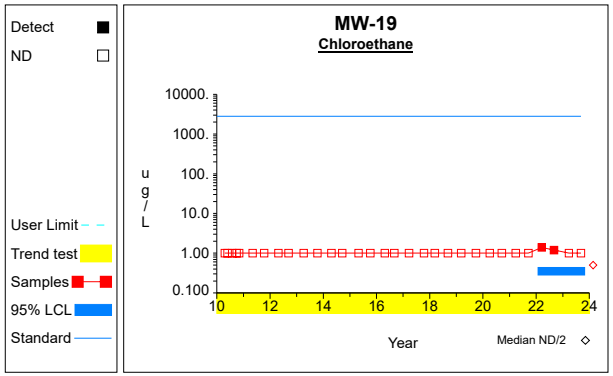

Graph 27



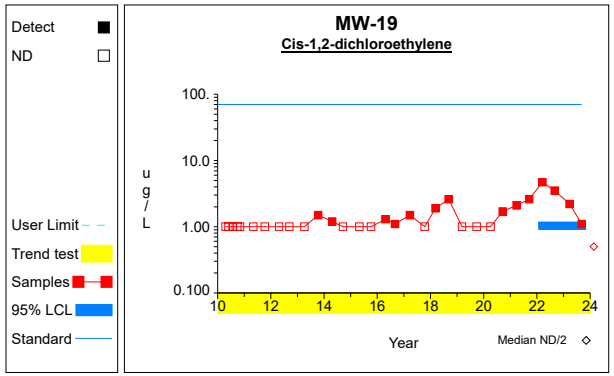

Graph 28



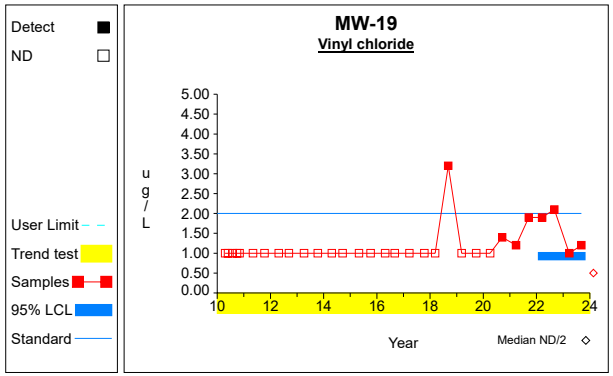

Graph 29




Graph 30

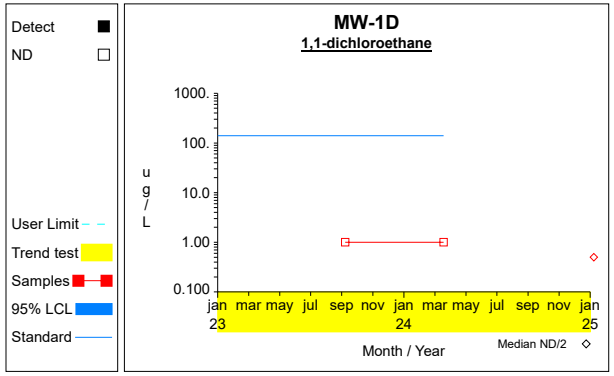



Graph 31

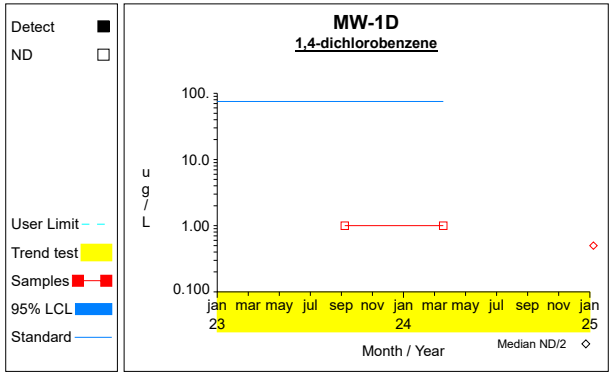



Graph 32

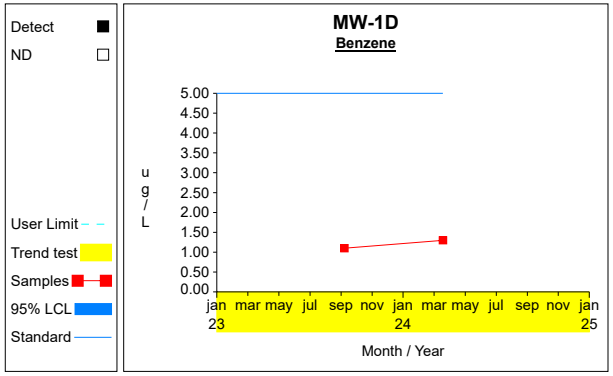
# Confidence Limits (Assessment)



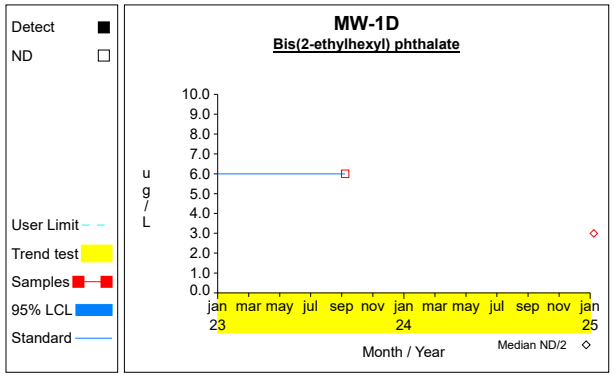

Graph 33



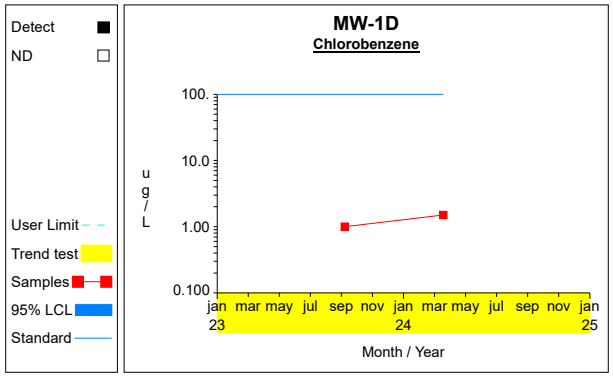

Graph 34



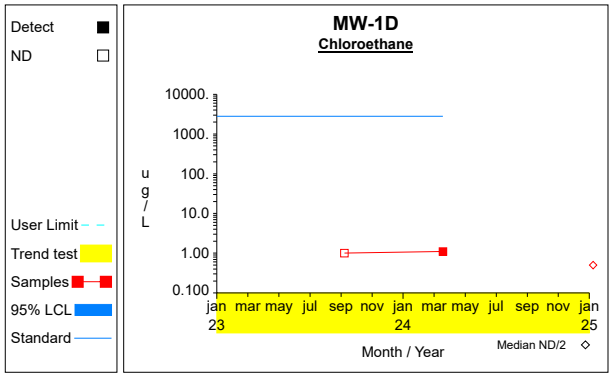

Graph 35



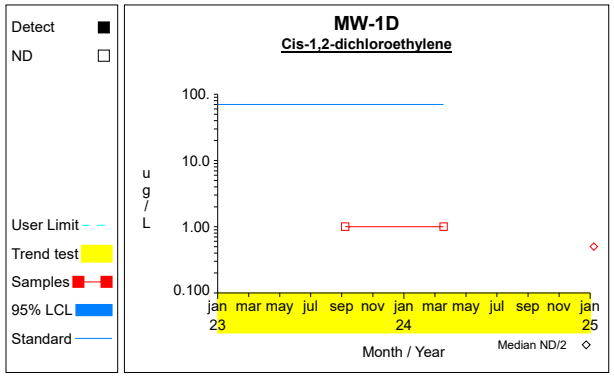

Graph 36



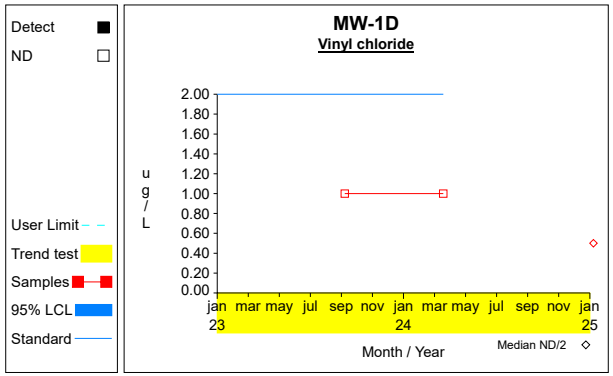

Graph 37




Graph 38

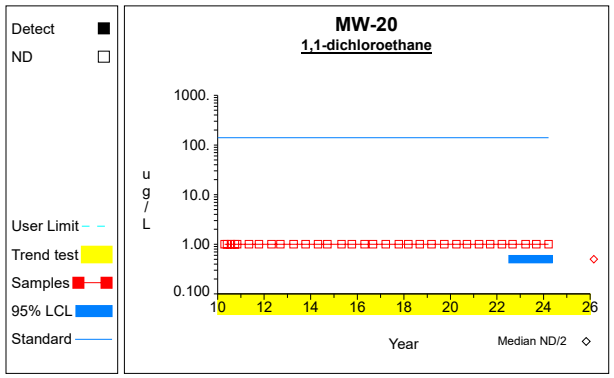



Graph 39

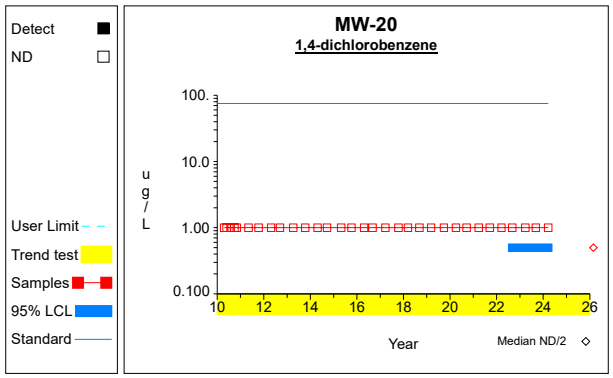



Graph 40

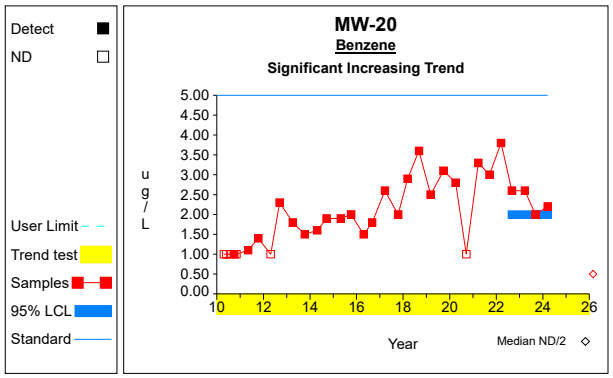
# Confidence Limits (Assessment)



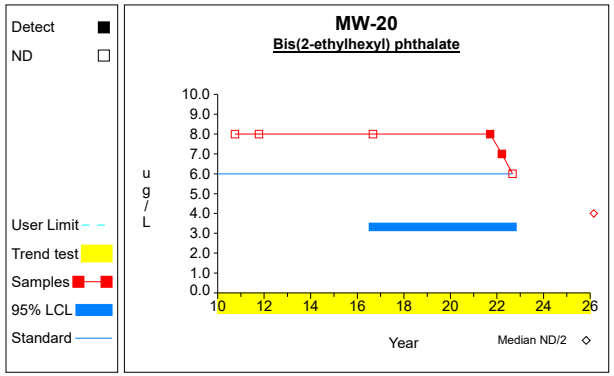

Graph 41



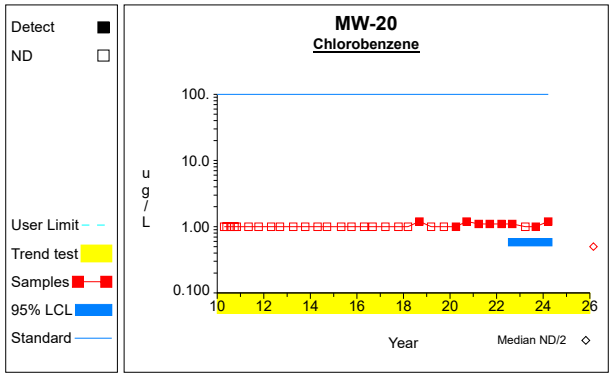

Graph 42



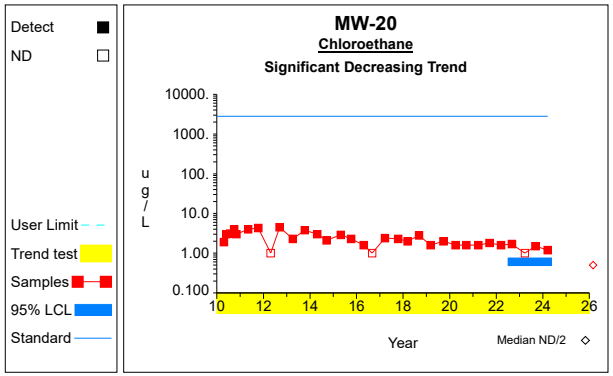

Graph 43



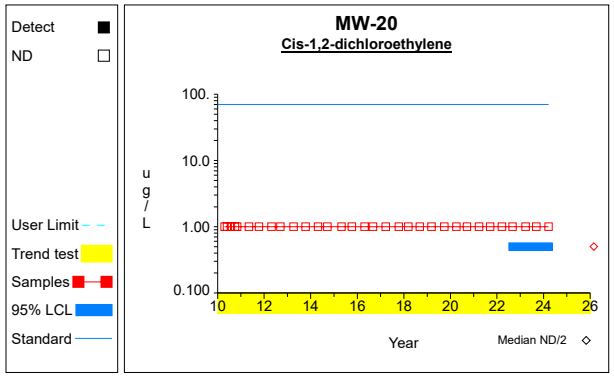

Graph 44



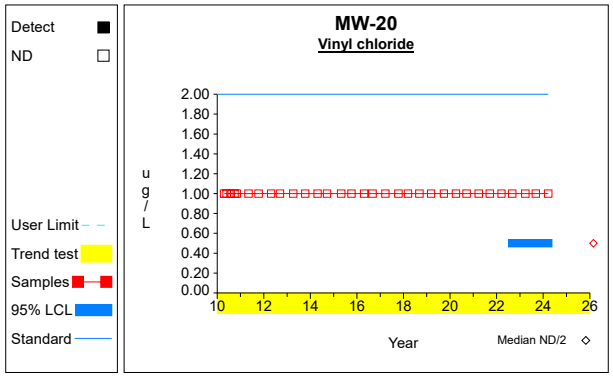

Graph 45




Graph 46



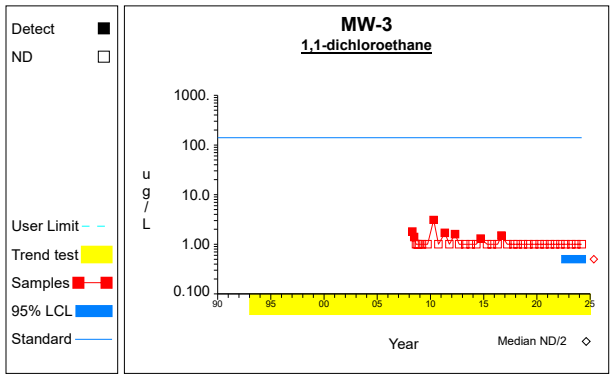

Graph 47



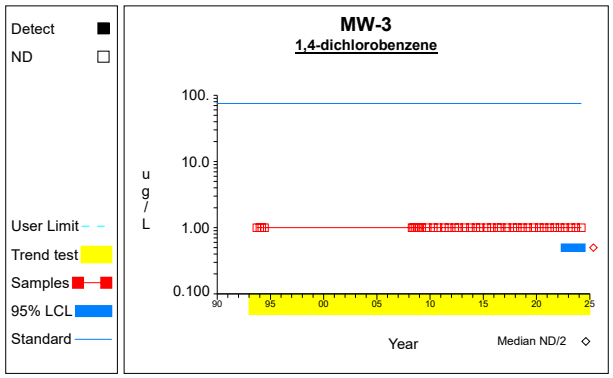

Graph 48

Prepared by: Otter Creek Environmental

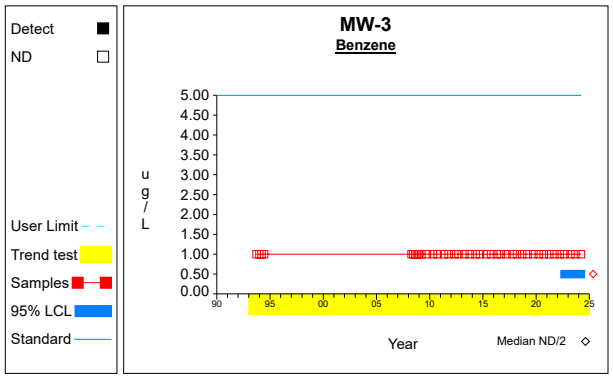
# Confidence Limits (Assessment)



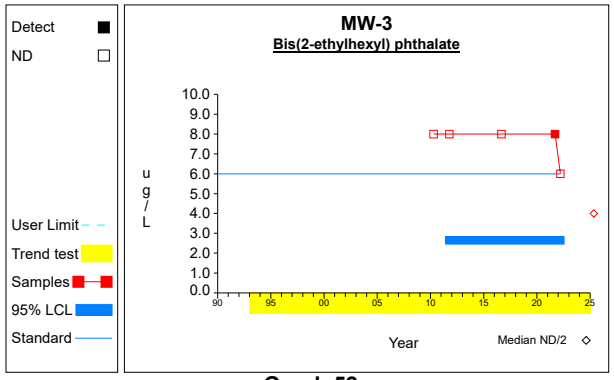

Graph 49



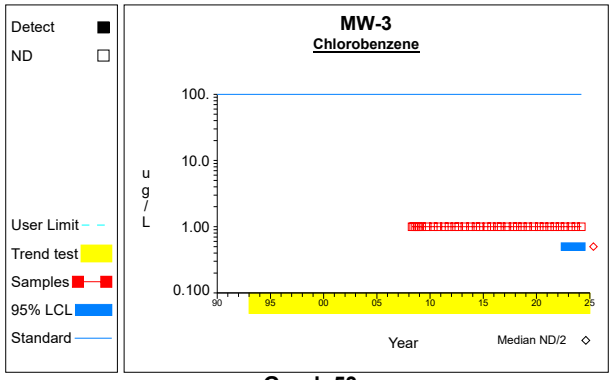

Graph 50



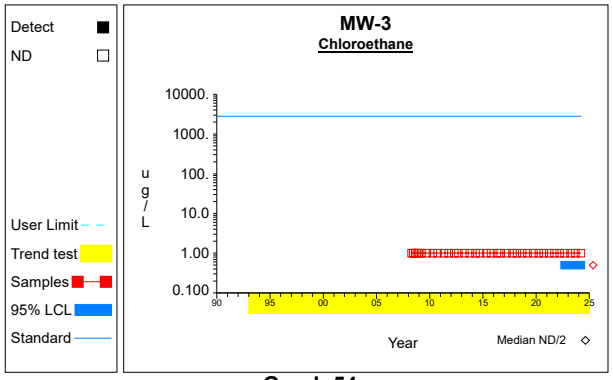

Graph 51



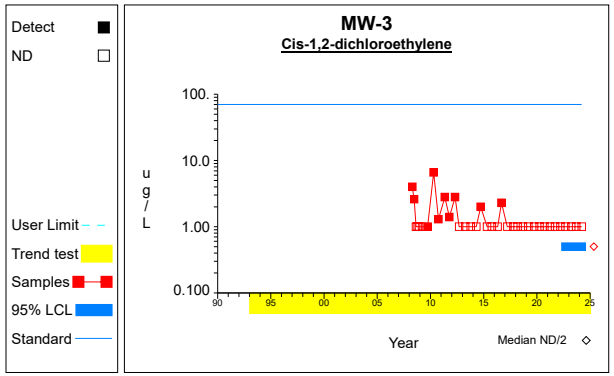

Graph 52



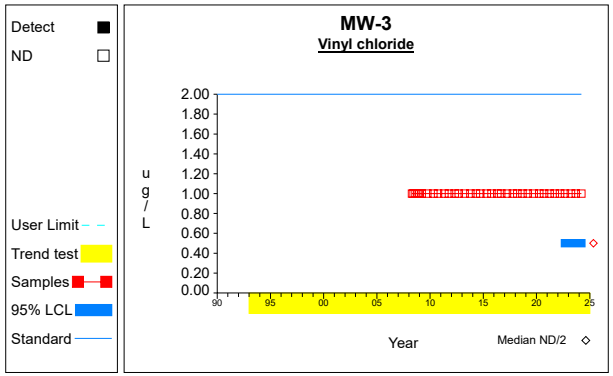

Graph 53




Graph 54

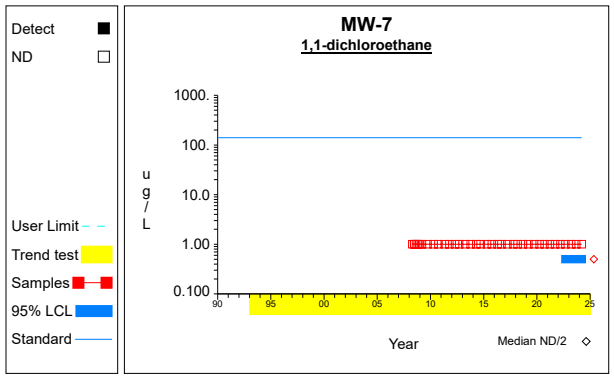



Graph 55

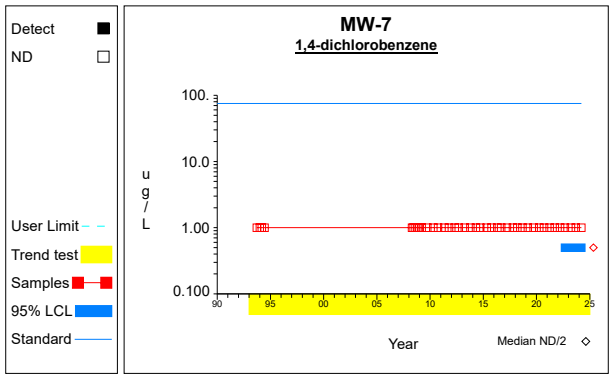



Graph 56

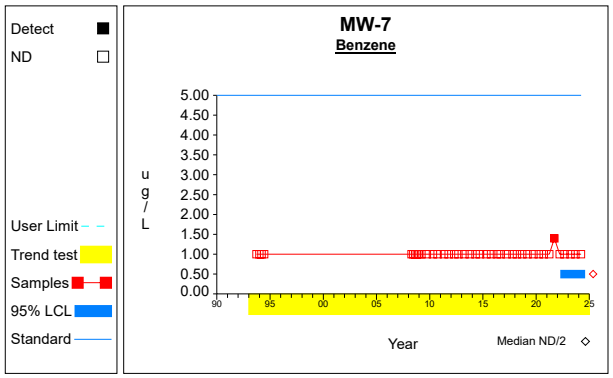
# Confidence Limits (Assessment)



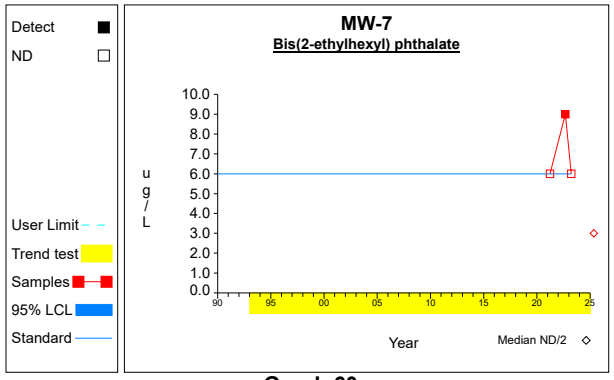

Graph 57



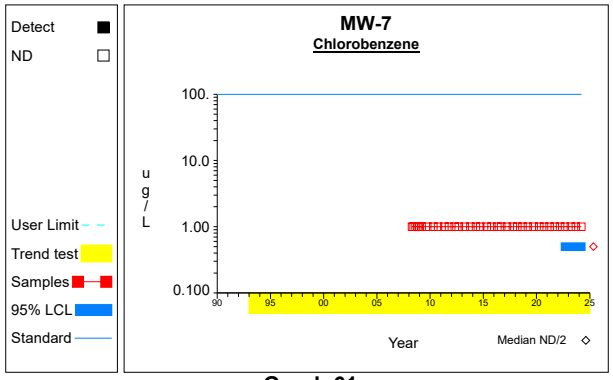

Graph 58



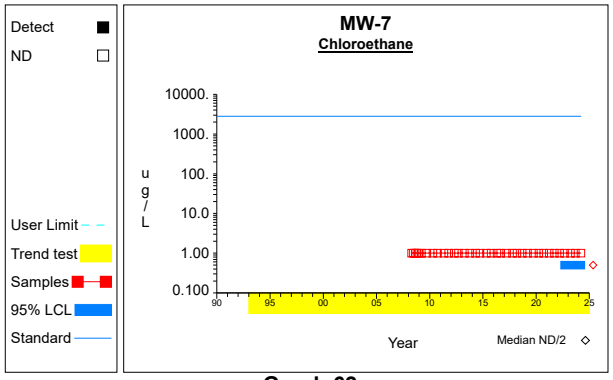

Graph 59



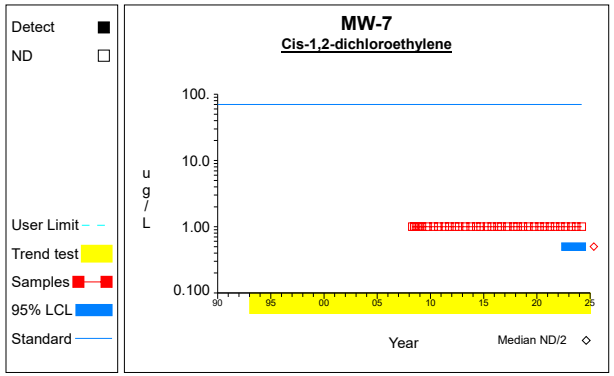

Graph 60



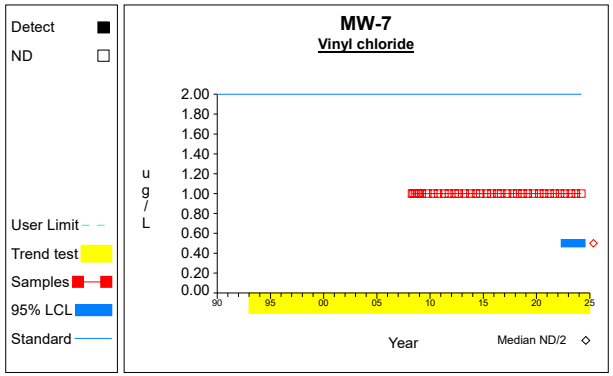

Graph 61




Graph 62




Graph 63




Graph 64

# Appendix B.2 –2nd Statistical Evaluation

# GROUND WATER STATISTICS

# FOR THE

# PAGE COUNTY SANITARY LANDFILL

**Second Semi-Annual Monitoring Event in 2024**

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**October 2024**

## 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 Page County Sanitary Landfill near Clarinda in Page County, Iowa. The statistical plan was designed to detect a release from the facility at the earliest indication so that it is protective of human health and the environment. Interwell statistics were used for comparison of the current data to background data at Page County Sanitary Landfill. The statistical plan conforms with IAC 567, Chapter 113.10, and the USEPA statistical guidance document ("*Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance"*, March 2009).

### Ground Water Monitoring Program

The groundwater monitoring network for Page County Sanitary Landfill (PCSL) includes upgradient wells MW-1 and MW-17 and downgradient wells MW-3, MW-7, MW-10, MW-11, MW-13, MW-14, MW-16, MW-18, MW-19, MW-20 and GWD-1. 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 events 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 interwell method was applied to the Page County Landfill data using the DUMPStat® statistical program. DUMPStat® is a program for the statistical analysis of groundwater monitoring data using methods described in "Statistical Methods for Groundwater Monitoring" by Dr. Robert D. Gibbons. DUMPStat is completely consistent with all USEPA regulations and guidance and the ASTM D6312-98 guidance.

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 can be used. If the detection frequency is 0% after thirteen samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit.

### Results of the Interwell Statistics

The background data used in this statistical analysis includes the ground water data collected from ground water wells MW-1, MW-17, and MW-44 during the period from September 2014, when the sampling protocol changed, through the current data. Monitoring well MW-44 was recently added as an upgradient sample point. A summary of the background data from monitoring wells MW-1, MW-17, and MW-44, 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 GU-3, GU-4, MW-1D, MW-3, MW-7, MW-10, MW-13, MW-14, MW-16, MW-18, MW-20, and MW-53 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.

**Trace Metal Prediction Limit Exceedances during the Second Semi-Annual Monitoring Event in 2024**

| Well | Trace Metal Detected | Result, µg/L | Prediction Limit, µg/L | Prediction Limit Type | Verified/ Awaiting verification |
|---|---|---|---|---|---|
| GU 4 | Zinc | 106 | 69.2000 | Nonparametric | Awaiting verification |
| MW-14 | Cadmium | 3.5 | 1.4000 | Nonparametric | Awaiting verification |
| MW-16 | Arsenic | 26.2 | 5.6000 | Nonparametric | Verified |
| MW-18 | Arsenic | 43.6 | 5.6000 | Nonparametric | Verified |
| MW-20 | Arsenic | 44.1 | 5.6000 | Nonparametric | Verified |
| | Barium | 1950 | 769.2044 | Normal | Verified |
| MW-7 | Arsenic | 9.0 | 5.6000 | Nonparametric | Awaiting verification |

The detection frequencies of the parameters in the up and down gradient monitoring wells are summarized in Table 3. Table 4 summarizes the results of the Shapiro-Wilk test. Table 5 is a summary of the statistics and prediction limits determined for the metals. Time series graphs of each of the parameters at each well with the corresponding prediction limits are attached.

A statistical power curve indicates the expected false assessments for the site as a whole. The false positive rate for interwell analyses is the percentage of failures when the upgradient versus downgradient true mean difference equals zero. False negative rate indicates the chance of missing contamination at a single well for a single constituent. The statistical power is a function of the number of wells included, the number of constituents compared, the detection frequencies, and the data distributions involved. For interwell analysis, the site-wide false positive rate is 4% and the test becomes sensitive to 3 standard deviation unit increases over background.

The past and current metals exceedances were evaluated against the ground water protection standards (GWPS) using confidence limits calculated in accordance with the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance, USEPA, March 2009 (Attachment C). The analysis was conducted to evaluate whether verified concentrations are significantly above the water quality standard. 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-18 (16.871 µg/L) exceeds the USEPA MCL of 10 µg/L.

The 95% LCL for arsenic at MW-20 (49.651 µg/L) exceeds the USEPA MCL of 10 µg/L.

The 95% LCL for cobalt at MW-20 (6.757 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, though the current concentration (6.4 µg/L) is below the site prediction limit of 30.6 µg/L.

The 95% LCL for cobalt at MW-7 (8.667 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, though the current concentration (10.1 µg/L) is below the site prediction limit of 30.6 µg/L.

The remainder of the calculated 95% LCLs are below the respective GWPS.

**Volatile Organic Compounds**

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

The 47 volatile organic compounds (VOCs) included in Appendix A were compared to site-specific limits in lieu of statistical comparisons. VOCs detected in the ground water at Page County Sanitary Landfill during the second semi-annual monitoring event in 2024 are summarized in the table below.

**VOCs detected at Page County Landfill 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-16 | Chlorobenzene | 2.3 | 1 | Verified | 100[a] |
| MW-20 | Benzene | 2.1 | 1 | Verified | 5[a] |
| | Chlorobenzene | 1.9 | 1 | Verified | 100[a] |

a - USEPA MCL
b – Iowa Statewide Standard

Many of the VOCs detected have been detected previously, but some not since 2022 monitoring. Because many of these VOCs were detected at these wells during the previous monitoring event at similar concentrations, these current detections are statistically significant.

The VOCs detected are typically associated with landfill gas migration. The detections are low-level and do not exceed ground water quality standards. Historical VOC detections in the ground water are summarized in Attachment D. The verified VOC detections were evaluated against the GWPS using confidence limits. The results are shown in Attachment E. The 95% LCLs for each of the verified VOC detections are below ground water quality standards.

**Attachment A**

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

## Table 1

### Analytical Data Summary for 8/1/2024

| Constituents | Units | GU 3 | GU 4 | MW-53 |
|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | ug/L | <1 | <1 | <1 |
| 1,1,1-trichloroethane | ug/L | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | ug/L | <1 | <1 | <1 |
| 1,1,2-trichloroethane | ug/L | <1 | <1 | <1 |
| 1,1-dichloroethane | ug/L | <1 | <1 | <1 |
| 1,1-dichloroethylene | ug/L | <1 | <1 | <1 |
| 1,2,3-trichloropropane | ug/L | <1 | <1 | <1 |
| 1,2-dibromo-3-chloropropane | ug/L | <5 | <5 | <5 |
| 1,2-dibromoethane | ug/L | <1 | <1 | <1 |
| 1,2-dichlorobenzene | ug/L | <1 | <1 | <1 |
| 1,2-dichloroethane | ug/L | <1 | <1 | <1 |
| 1,2-dichloropropane | ug/L | <1 | <1 | <1 |
| 1,4-dichlorobenzene | ug/L | <1 | <1 | <1 |
| 2-butanone (mek) | ug/L | <10 | <10 | <10 |
| 2-hexanone (mbk) | ug/L | <5 | <5 | <5 |
| 4-methyl-2-pentanone (mibk) | ug/L | <5 | <5 | <5 |
| Acetone | ug/L | <10 | <10 | <10 |
| Acrylonitrile | ug/L | <5 | <5 | <5 |
| Antimony, total | ug/L | <2 | <2 | <2 |
| Arsenic, total | ug/L | <4 | <4 | <4 |
| Barium, total | ug/L | 287.0 | 272.0 | 46.2 |
| Benzene | ug/L | <1 | <1 | <1 |
| Beryllium, total | ug/L | <4 | <4 | <4 |
| Bromochloromethane | ug/L | <1 | <1 | <1 |
| Bromodichloromethane | ug/L | <1 | <1 | <1 |
| Bromoform | ug/L | <1 | <1 | <1 |
| Bromomethane | ug/L | <1 | <1 | <1 |
| Cadmium, total | ug/L | <.8 | <.8 | <.8 |
| Carbon disulfide | ug/L | <1 | <1 | <1 |
| Carbon tetrachloride | ug/L | <1 | <1 | <1 |
| Chlorobenzene | ug/L | <1 | <1 | <1 |
| Chloroethane | ug/L | <1 | <1 | <1 |
| Chloroform | ug/L | <1 | <1 | <1 |
| Chloromethane | ug/L | <1 | <1 | <1 |
| Chromium, total | ug/L | <8 | <8 | <8 |
| Cis-1,2-dichloroethylene | ug/L | <1 | <1 | <1 |
| Cis-1,3-dichloropropene | ug/L | <1 | <1 | <1 |
| Cobalt, total | ug/L | .4 | <.4 | <.4 |
| Copper, total | ug/L | <4 | <4 | <4 |
| Dibromochloromethane | ug/L | <1 | <1 | <1 |
| Dibromomethane | ug/L | <1 | <1 | <1 |
| Ethylbenzene | ug/L | <1 | <1 | <1 |
| Lead, total | ug/L | <4 | <4 | <4 |
| Methyl iodide | ug/L | <1 | <1 | <1 |
| Methylene chloride | ug/L | <5 | <5 | <5 |
| Nickel, total | ug/L | 6.1 | 6.8 | <4.0 |
| Selenium, total | ug/L | <4 | <4 | <4 |
| Silver, total | ug/L | <4 | <4 | <4 |
| Styrene | ug/L | <1 | <1 | <1 |
| Tetrachloroethylene | ug/L | <1 | <1 | <1 |
| Thallium, total | ug/L | <2 | <2 | <2 |
| Toluene | ug/L | <1 | <1 | <1 |
| Trans-1,2-dichloroethylene | ug/L | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | ug/L | <1 | <1 | <1 |

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

## Table 1

### Analytical Data Summary for 8/1/2024

| Constituents | Units | GU 3 | GU 4 | MW-53 |
|---|---|---|---|---|
| Trans-1,4-dichloro-2-butene | ug/L | <5 | <5 | <5 |
| Trichloroethylene | ug/L | <1 | <1 | <1 |
| Trichlorofluoromethane | ug/L | <1 | <1 | <1 |
| Vanadium, total | ug/L | <20 | <20 | <20 |
| Vinyl acetate | ug/L | <5 | <5 | <5 |
| Vinyl chloride | ug/L | <1 | <1 | <1 |
| Xylenes, total | ug/L | <2 | <2 | <2 |
| Zinc, total | ug/L | 173.0 | 67.2 | <20.0 |

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

## Table 2

## Analytical Data Summary for 9/25/2024

| Constituents | Units | GU 3 | GU 4 | MW-10 | MW-13 | MW-14 | MW-16 | MW-17 | MW-18 | MW-1D | MW-20 | MW-3 | MW-53 | MW-7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,1-trichloroethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2,2-tetrachloroethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2-trichloroethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-dichloroethane | ug/L | <1 | <1 | <1 | <1 | <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 | <1 | <1 |
| 1,1-dichloropropene | ug/L | | | <1 | | | | | | | | | | |
| 1,2,3-trichloropropane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2,4-trichlorobenzene | ug/L | | | <1 | | | | | | | | | | |
| 1,2-dibromo-3-chloropropane | ug/L | <5 | <5 | <1 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-dibromoethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichlorobenzene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloroethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-dichloropropane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,3-dichlorobenzene | ug/L | | | <1 | | | | | | | | | | |
| 1,3-dichloropropane | ug/L | | | <1 | | | | | | | | | | |
| 1,4-dichlorobenzene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 2,2-dichloropropane | ug/L | | | <1 | | | | | | | | | | |
| 2-butanone (mek) | ug/L | <10 | <10 | <5 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| 2-hexanone (mbk) | ug/L | <5 | <5 | <5 | <5 | <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 | <5 | <5 | <5 | <5 |
| Acetone | ug/L | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Acetonitrile | ug/L | | | <10 | | | | | | | | | | |
| Acrolein | ug/L | | | <10 | | | | | | | | | | |
| Acrylonitrile | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Allyl chloride | ug/L | | | <1 | | | | | | | | | | |
| Antimony, total | ug/L | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Arsenic, total | ug/L | <4.0 | <4.0 | 5.2 | <4.0 | <4.0 | 26.2 | <4.0 | 43.6 | <4.0 | 44.1 | <4.0 | <4.0 | 9.0 |
| Barium, total | ug/L | 242.0 | 289.0 | 575.0 | 66.4 | 112.0 | 756.0 | 90.1 | 416.0 | 637.0 | 1950.0 | 295.0 | 58.9 | 321.0 |
| Benzene | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 2.1 | <1.0 | <1.0 | <1.0 |
| Beryllium, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Bromochloromethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromodichloromethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromoform | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromomethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cadmium, total | ug/L | <.8 | <.8 | <.8 | <.8 | 3.5 | <.8 | <.8 | .9 | <.8 | <.8 | <.8 | <.8 | <.8 |
| Carbon disulfide | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon tetrachloride | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzene | ug/L | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 2.3 | <1.0 | <1.0 | <1.0 | 1.9 | <1.0 | <1.0 | <1.0 |
| Chloroethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroform | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloromethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroprene | ug/L | | | <1 | | | | | | | | | | |
| Chromium, total | ug/L | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 | <8 |
| Cis-1,2-dichloroethylene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cis-1,3-dichloropropene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cobalt, total | ug/L | <.4 | <.4 | 2.4 | <.4 | .4 | 1.7 | <.4 | 1.0 | 2.4 | 6.4 | <.4 | <.4 | 10.1 |
| Copper, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Dibromochloromethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Dibromomethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Dichlorodifluoromethane | ug/L | | | <1 | | | | | | | | | | |
| Ethyl methacrylate | ug/L | | | <10 | | | | | | | | | | |
| Ethylbenzene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Isobutanol | mg/L | | | <1 | | | | | | | | | | |

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

## Table 2

## Analytical Data Summary for 9/25/2024

| Constituents | Units | GU 3 | GU 4 | MW-10 | MW-13 | MW-14 | MW-16 | MW-17 | MW-18 | MW-1D | MW-20 | MW-3 | MW-53 | MW-7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lead, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Mercury, total | ug/L | | | <.5 | | | | | | | | | | |
| Methacrylonitrile | ug/L | | | <1 | | | | | | | | | | |
| Methyl iodide | ug/L | <1 | <1 | <2 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Methyl methacrylate | ug/L | | | <1 | | | | | | | | | | |
| Methylene chloride | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Nickel, total | ug/L | <4.0 | <4.0 | 11.7 | <4.0 | 4.1 | 36.0 | <4.0 | 5.4 | 11.3 | 18.0 | <4.0 | <4.0 | 16.6 |
| Propionitrile | ug/L | | | <10 | | | | | | | | | | |
| Selenium, total | ug/L | 4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Silver, total | ug/L | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 | <4 |
| Styrene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulfide, total | mg/L | | | <.1 | | | | | | | | | | |
| Tetrachloroethylene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Thallium, total | ug/L | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Tin, total | ug/L | | | <20 | | | | | | | | | | |
| Toluene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,2-dichloroethylene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,3-dichloropropene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trans-1,4-dichloro-2-butene | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethylene | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trichlorofluoromethane | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Vanadium, total | ug/L | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| Vinyl acetate | ug/L | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl chloride | ug/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Xylenes, total | ug/L | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Zinc, total | ug/L | <20 | 106 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |

* - 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-1 | 09/17/2014 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 04/28/2015 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 10/06/2015 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 04/23/2016 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 09/01/2016 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 03/21/2017 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 10/13/2017 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 03/09/2018 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 09/06/2018 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 03/07/2019 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 09/26/2019 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 04/02/2020 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 09/17/2020 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 03/25/2021 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 09/16/2021 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 03/16/2022 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 09/01/2022 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-1 | 03/24/2023 | ND | 2.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/17/2014 | | 5.6000 | | |
| Arsenic, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/06/2018 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 03/07/2019 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/26/2019 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 04/02/2020 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 03/25/2021 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 03/16/2022 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 09/01/2022 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-1 | 03/24/2023 | ND | 4.0000 | | |
| Barium, total | ug/L | MW-1 | 09/17/2014 | | 684.0000 | | |
| Barium, total | ug/L | MW-1 | 04/28/2015 | | 456.0000 | | |
| Barium, total | ug/L | MW-1 | 10/06/2015 | | 279.0000 | | |
| Barium, total | ug/L | MW-1 | 04/23/2016 | | 306.0000 | | |
| Barium, total | ug/L | MW-1 | 09/01/2016 | | 283.0000 | | |
| Barium, total | ug/L | MW-1 | 03/21/2017 | | 310.0000 | | |
| Barium, total | ug/L | MW-1 | 10/13/2017 | | 455.0000 | | |
| Barium, total | ug/L | MW-1 | 03/09/2018 | | 484.0000 | | |
| Barium, total | ug/L | MW-1 | 09/06/2018 | | 361.0000 | | |
| Barium, total | ug/L | MW-1 | 03/07/2019 | | 493.0000 | | |
| Barium, total | ug/L | MW-1 | 09/26/2019 | | 405.0000 | | |
| Barium, total | ug/L | MW-1 | 04/02/2020 | | 452.0000 | | |
| Barium, total | ug/L | MW-1 | 09/17/2020 | | 492.0000 | | |
| Barium, total | ug/L | MW-1 | 03/25/2021 | | 715.0000 | | |
| Barium, total | ug/L | MW-1 | 09/16/2021 | | 467.0000 | | |
| Barium, total | ug/L | MW-1 | 03/16/2022 | | 642.0000 | | |
| Barium, total | ug/L | MW-1 | 09/01/2022 | | 580.0000 | | |
| Barium, total | ug/L | MW-1 | 03/24/2023 | | 657.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/17/2014 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/06/2018 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 03/07/2019 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/26/2019 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 04/02/2020 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 03/25/2021 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 03/16/2022 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 09/01/2022 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-1 | 03/24/2023 | ND | 4.0000 | | |
| Cadmium, total | ug/L | MW-1 | 09/17/2014 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 04/28/2015 | ND | 0.8000 | | |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

### Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Cadmium, total | ug/L | MW-1 | 10/06/2015 | | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 04/23/2016 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 09/01/2016 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 03/21/2017 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 10/13/2017 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 03/09/2018 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 09/06/2018 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 03/07/2019 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 09/26/2019 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 04/02/2020 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 09/17/2020 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 03/25/2021 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 09/16/2021 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 03/16/2022 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 09/01/2022 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-1 | 03/24/2023 | ND | 0.8000 | | |
| Chromium, total | ug/L | MW-1 | 09/17/2014 | | 8.9000 | | |
| Chromium, total | ug/L | MW-1 | 04/28/2015 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 10/06/2015 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 04/23/2016 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 09/01/2016 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 03/21/2017 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 10/13/2017 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 03/09/2018 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 09/06/2018 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 03/07/2019 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 09/26/2019 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 04/02/2020 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 09/17/2020 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 03/25/2021 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 09/16/2021 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 03/16/2022 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 09/01/2022 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-1 | 03/24/2023 | ND | 8.0000 | | |
| Cobalt, total | ug/L | MW-1 | 09/17/2014 | | 30.6000 | | |
| Cobalt, total | ug/L | MW-1 | 04/28/2015 | | 6.0000 | | |
| Cobalt, total | ug/L | MW-1 | 10/06/2015 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-1 | 04/23/2016 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-1 | 09/01/2016 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-1 | 03/21/2017 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-1 | 10/13/2017 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-1 | 03/09/2018 | | 2.5000 | | |
| Cobalt, total | ug/L | MW-1 | 09/06/2018 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-1 | 03/07/2019 | | 4.7000 | | |
| Cobalt, total | ug/L | MW-1 | 09/26/2019 | | 11.2000 | | |
| Cobalt, total | ug/L | MW-1 | 04/02/2020 | | 2.7000 | | |
| Cobalt, total | ug/L | MW-1 | 09/17/2020 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-1 | 03/25/2021 | | 11.8000 | | |
| Cobalt, total | ug/L | MW-1 | 09/16/2021 | | 0.4000 | | |
| Cobalt, total | ug/L | MW-1 | 03/16/2022 | | 2.1000 | | |
| Cobalt, total | ug/L | MW-1 | 09/01/2022 | | 9.4000 | | |
| Cobalt, total | ug/L | MW-1 | 03/24/2023 | | 14.1000 | | |
| Copper, total | ug/L | MW-1 | 09/17/2014 | | 11.6000 | | |
| Copper, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 09/06/2018 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 03/07/2019 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 09/26/2019 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 04/02/2020 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 03/25/2021 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 03/16/2022 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 09/01/2022 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-1 | 03/24/2023 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 09/17/2014 | | 6.9000 | | |
| Lead, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

### Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Lead, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 09/06/2018 | | 7.4000 | | |
| Lead, total | ug/L | MW-1 | 03/07/2019 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 09/26/2019 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 04/02/2020 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 03/25/2021 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 03/16/2022 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 09/01/2022 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-1 | 03/24/2023 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 09/17/2014 | | 60.4000 | | |
| Nickel, total | ug/L | MW-1 | 04/28/2015 | | 20.6000 | | |
| Nickel, total | ug/L | MW-1 | 10/06/2015 | | 10.6000 | | |
| Nickel, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 10/13/2017 | | 13.3000 | | |
| Nickel, total | ug/L | MW-1 | 03/09/2018 | | 20.1000 | | |
| Nickel, total | ug/L | MW-1 | 09/06/2018 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 03/07/2019 | | 16.7000 | | |
| Nickel, total | ug/L | MW-1 | 09/26/2019 | | 9.1000 | | |
| Nickel, total | ug/L | MW-1 | 04/02/2020 | | 5.1000 | | |
| Nickel, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 03/25/2021 | | 28.1000 | | |
| Nickel, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-1 | 03/16/2022 | | 15.5000 | | |
| Nickel, total | ug/L | MW-1 | 09/01/2022 | | 12.6000 | | |
| Nickel, total | ug/L | MW-1 | 03/24/2023 | | 21.5000 | | |
| Selenium, total | ug/L | MW-1 | 09/17/2014 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 09/06/2018 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 03/07/2019 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 09/26/2019 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 04/02/2020 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 03/25/2021 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 03/16/2022 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 09/01/2022 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-1 | 03/24/2023 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/17/2014 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/06/2018 | ND | 8.0000 | 4.0000 | ** |
| Silver, total | ug/L | MW-1 | 03/07/2019 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/26/2019 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 04/02/2020 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/17/2020 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 03/25/2021 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/16/2021 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 03/16/2022 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 09/01/2022 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-1 | 03/24/2023 | ND | 4.0000 | | |
| Thallium, total | ug/L | MW-1 | 09/17/2014 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 04/28/2015 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 10/06/2015 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 04/23/2016 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 09/01/2016 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 03/21/2017 | ND | 4.0000 | 2.0000 | ** |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

## Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Thallium, total | ug/L | MW-1 | 10/13/2017 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 03/09/2018 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 09/06/2018 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-1 | 03/07/2019 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 09/26/2019 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 04/02/2020 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 09/17/2020 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 03/25/2021 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 09/16/2021 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 03/16/2022 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 09/01/2022 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-1 | 03/24/2023 | ND | 2.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/17/2014 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 04/28/2015 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 10/06/2015 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 04/23/2016 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/01/2016 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 03/21/2017 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 10/13/2017 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 03/09/2018 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/06/2018 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 03/07/2019 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/26/2019 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 04/02/2020 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/17/2020 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 03/25/2021 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/16/2021 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 03/16/2022 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 09/01/2022 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-1 | 03/24/2023 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 09/17/2014 | | 32.0000 | | |
| Zinc, total | ug/L | MW-1 | 04/28/2015 | | 12.3000 | | |
| Zinc, total | ug/L | MW-1 | 10/06/2015 | | 8.8000 | | |
| Zinc, total | ug/L | MW-1 | 04/23/2016 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 09/01/2016 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-1 | 03/21/2017 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-1 | 10/13/2017 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-1 | 03/09/2018 | | 11.5000 | | |
| Zinc, total | ug/L | MW-1 | 09/06/2018 | | 15.6000 | | |
| Zinc, total | ug/L | MW-1 | 03/07/2019 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-1 | 09/26/2019 | | 27.7000 | | |
| Zinc, total | ug/L | MW-1 | 04/02/2020 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 09/17/2020 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 03/25/2021 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 09/16/2021 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 03/16/2022 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 09/01/2022 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-1 | 03/24/2023 | ND | 20.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/18/2014 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 04/28/2015 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 10/06/2015 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 04/23/2016 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/01/2016 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/21/2017 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 10/13/2017 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/09/2018 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/06/2018 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/07/2019 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/26/2019 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 04/02/2020 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/17/2020 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/25/2021 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/16/2021 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/16/2022 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/01/2022 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/24/2023 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/07/2023 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 03/18/2024 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-17 | 09/25/2024 | ND | 2.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

### Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Arsenic, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-17 | 09/25/2024 | ND | 4.0000 | | |
| Barium, total | ug/L | MW-17 | 09/18/2014 | | 91.4000 | | |
| Barium, total | ug/L | MW-17 | 04/28/2015 | | 106.0000 | | |
| Barium, total | ug/L | MW-17 | 10/06/2015 | | 85.3000 | | |
| Barium, total | ug/L | MW-17 | 04/23/2016 | | 99.2000 | | |
| Barium, total | ug/L | MW-17 | 09/01/2016 | | 88.5000 | | |
| Barium, total | ug/L | MW-17 | 03/21/2017 | | 93.7000 | | |
| Barium, total | ug/L | MW-17 | 10/13/2017 | | 89.5000 | | |
| Barium, total | ug/L | MW-17 | 03/09/2018 | | 86.5000 | | |
| Barium, total | ug/L | MW-17 | 09/06/2018 | | 83.2000 | | |
| Barium, total | ug/L | MW-17 | 03/07/2019 | | 99.9000 | | |
| Barium, total | ug/L | MW-17 | 09/26/2019 | | 95.8000 | | |
| Barium, total | ug/L | MW-17 | 04/02/2020 | | 102.0000 | | |
| Barium, total | ug/L | MW-17 | 09/17/2020 | | 94.6000 | | |
| Barium, total | ug/L | MW-17 | 03/25/2021 | | 92.2000 | | |
| Barium, total | ug/L | MW-17 | 09/16/2021 | | 89.6000 | | |
| Barium, total | ug/L | MW-17 | 03/16/2022 | | 89.9000 | | |
| Barium, total | ug/L | MW-17 | 09/01/2022 | | 90.3000 | | |
| Barium, total | ug/L | MW-17 | 03/24/2023 | | 84.3000 | | |
| Barium, total | ug/L | MW-17 | 09/07/2023 | | 92.4000 | | |
| Barium, total | ug/L | MW-17 | 03/18/2024 | | 96.4000 | | |
| Barium, total | ug/L | MW-17 | 09/25/2024 | | 90.1000 | | |
| Beryllium, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-17 | 09/25/2024 | ND | 4.0000 | | |
| Cadmium, total | ug/L | MW-17 | 09/18/2014 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 04/28/2015 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 10/06/2015 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 04/23/2016 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/01/2016 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 03/21/2017 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 10/13/2017 | | 1.4000 | | |
| Cadmium, total | ug/L | MW-17 | 03/09/2018 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/06/2018 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 03/07/2019 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/26/2019 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 04/02/2020 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/17/2020 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 03/25/2021 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/16/2021 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 03/16/2022 | ND | 0.8000 | | |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

### Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Cadmium, total | ug/L | MW-17 | 09/01/2022 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 03/24/2023 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/07/2023 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 03/18/2024 | | 0.8000 | | |
| Cadmium, total | ug/L | MW-17 | 09/25/2024 | ND | 0.8000 | | |
| Chromium, total | ug/L | MW-17 | 09/18/2014 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 04/28/2015 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 10/06/2015 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 04/23/2016 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/01/2016 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/21/2017 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 10/13/2017 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/09/2018 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/06/2018 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/07/2019 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/26/2019 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 04/02/2020 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/17/2020 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/25/2021 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/16/2021 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/16/2022 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/01/2022 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/24/2023 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/07/2023 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 03/18/2024 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-17 | 09/25/2024 | ND | 8.0000 | | |
| Cobalt, total | ug/L | MW-17 | 09/18/2014 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 04/28/2015 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 10/06/2015 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 04/23/2016 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 09/01/2016 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 03/21/2017 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 10/13/2017 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 03/09/2018 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 09/06/2018 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 03/07/2019 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 09/26/2019 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 04/02/2020 | ND | 0.8000 | | |
| Cobalt, total | ug/L | MW-17 | 09/17/2020 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 03/25/2021 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 09/16/2021 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 03/16/2022 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 09/01/2022 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 03/24/2023 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 09/07/2023 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 03/18/2024 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-17 | 09/25/2024 | ND | 0.4000 | 0.8000 | ** |
| Copper, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-17 | 09/25/2024 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

### Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Lead, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-17 | 09/25/2024 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-17 | 09/25/2024 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-17 | 09/25/2024 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/06/2018 | ND | 8.0000 | 4.0000 | ** |
| Silver, total | ug/L | MW-17 | 03/07/2019 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/26/2019 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 04/02/2020 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/17/2020 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 03/25/2021 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/16/2021 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 03/16/2022 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/01/2022 | ND | 4.0000 | | |

* - Outlier for that well and constituent.
** - ND value replaced with median RL.
*** - ND value replaced with manual RL.
ND = Not detected, Result = detection limit.

## Table 1

## Upgradient Data

| Constituent | Units | Well | Date | | Result | Adjusted | |
|---|---|---|---|---|---|---|---|
| Silver, total | ug/L | MW-17 | 03/24/2023 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/07/2023 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 03/18/2024 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-17 | 09/25/2024 | ND | 4.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/18/2014 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 04/28/2015 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 10/06/2015 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 04/23/2016 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 09/01/2016 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 03/21/2017 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 10/13/2017 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 03/09/2018 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 09/06/2018 | ND | 4.0000 | 2.0000 | ** |
| Thallium, total | ug/L | MW-17 | 03/07/2019 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/26/2019 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 04/02/2020 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/17/2020 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 03/25/2021 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/16/2021 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 03/16/2022 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/01/2022 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 03/24/2023 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/07/2023 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 03/18/2024 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-17 | 09/25/2024 | ND | 2.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/18/2014 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 04/28/2015 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 10/06/2015 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 04/23/2016 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/01/2016 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/21/2017 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 10/13/2017 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/09/2018 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/06/2018 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/07/2019 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/26/2019 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 04/02/2020 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/17/2020 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/25/2021 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/16/2021 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/16/2022 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/01/2022 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/24/2023 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/07/2023 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 03/18/2024 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-17 | 09/25/2024 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/18/2014 | | 8.1000 | | |
| Zinc, total | ug/L | MW-17 | 04/28/2015 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 10/06/2015 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 04/23/2016 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/01/2016 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 03/21/2017 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 10/13/2017 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 03/09/2018 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 09/06/2018 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 03/07/2019 | ND | 8.0000 | 20.0000 | ** |
| Zinc, total | ug/L | MW-17 | 09/26/2019 | | 8.5000 | | |
| Zinc, total | ug/L | MW-17 | 04/02/2020 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/17/2020 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 03/25/2021 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/16/2021 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 03/16/2022 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/01/2022 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 03/24/2023 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/07/2023 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 03/18/2024 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-17 | 09/25/2024 | ND | 20.0000 | | |
| Antimony, total | ug/L | MW-44 | 03/16/2022 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-44 | 11/13/2023 | ND | 2.0000 | | |
| Antimony, total | ug/L | MW-44 | 03/18/2024 | ND | 2.0000 | | |
| Arsenic, total | ug/L | MW-44 | 03/16/2022 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Arsenic, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Barium, total | ug/L | MW-44 | 03/16/2022 | | 124.0000 | | |

* - 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 | |
|---|---|---|---|---|---|---|---|
| Barium, total | ug/L | MW-44 | 11/13/2023 | | 137.0000 | | |
| Barium, total | ug/L | MW-44 | 03/18/2024 | | 154.0000 | | |
| Beryllium, total | ug/L | MW-44 | 03/16/2022 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Beryllium, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Cadmium, total | ug/L | MW-44 | 03/16/2022 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-44 | 11/13/2023 | ND | 0.8000 | | |
| Cadmium, total | ug/L | MW-44 | 03/18/2024 | ND | 0.8000 | | |
| Chromium, total | ug/L | MW-44 | 03/16/2022 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-44 | 11/13/2023 | ND | 8.0000 | | |
| Chromium, total | ug/L | MW-44 | 03/18/2024 | ND | 8.0000 | | |
| Cobalt, total | ug/L | MW-44 | 03/16/2022 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-44 | 11/13/2023 | ND | 0.4000 | 0.8000 | ** |
| Cobalt, total | ug/L | MW-44 | 03/18/2024 | ND | 0.4000 | 0.8000 | ** |
| Copper, total | ug/L | MW-44 | 03/16/2022 | | 4.3000 | | |
| Copper, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Copper, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-44 | 03/16/2022 | | 6.1000 | | |
| Lead, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Lead, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-44 | 03/16/2022 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Nickel, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-44 | 03/16/2022 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Selenium, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-44 | 03/16/2022 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-44 | 11/13/2023 | ND | 4.0000 | | |
| Silver, total | ug/L | MW-44 | 03/18/2024 | ND | 4.0000 | | |
| Thallium, total | ug/L | MW-44 | 03/16/2022 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-44 | 11/13/2023 | ND | 2.0000 | | |
| Thallium, total | ug/L | MW-44 | 03/18/2024 | ND | 2.0000 | | |
| Vanadium, total | ug/L | MW-44 | 03/16/2022 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-44 | 11/13/2023 | ND | 20.0000 | | |
| Vanadium, total | ug/L | MW-44 | 03/18/2024 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-44 | 03/16/2022 | | 69.2000 | | |
| Zinc, total | ug/L | MW-44 | 11/13/2023 | ND | 20.0000 | | |
| Zinc, total | ug/L | MW-44 | 03/18/2024 | 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 | GU 3 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | GU 3 | 09/25/2024 | ND | 4.0000 | | 5.6000 |
| Barium, total | ug/L | GU 3 | 09/25/2024 | | 242.0000 | | 769.2044 |
| Beryllium, total | ug/L | GU 3 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | GU 3 | 09/25/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | GU 3 | 09/25/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | GU 3 | 09/25/2024 | ND | 0.4000 | | 30.6000 |
| Copper, total | ug/L | GU 3 | 09/25/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | GU 3 | 09/25/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | GU 3 | 09/25/2024 | ND | 4.0000 | | 60.4000 |
| Selenium, total | ug/L | GU 3 | 09/25/2024 | | 4.0000 | * | 4.0000 |
| Silver, total | ug/L | GU 3 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | GU 3 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | GU 3 | 09/25/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | GU 3 | 09/25/2024 | ND | 20.0000 | ** | 69.2000 |
| Antimony, total | ug/L | GU 4 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | GU 4 | 09/25/2024 | ND | 4.0000 | | 5.6000 |
| Barium, total | ug/L | GU 4 | 09/25/2024 | | 289.0000 | | 769.2044 |
| Beryllium, total | ug/L | GU 4 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | GU 4 | 09/25/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | GU 4 | 09/25/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | GU 4 | 09/25/2024 | ND | 0.4000 | | 30.6000 |
| Copper, total | ug/L | GU 4 | 09/25/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | GU 4 | 09/25/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | GU 4 | 09/25/2024 | ND | 4.0000 | | 60.4000 |
| Selenium, total | ug/L | GU 4 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | GU 4 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | GU 4 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | GU 4 | 09/25/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | GU 4 | 09/25/2024 | | 106.0000 | * | 69.2000 |
| Antimony, total | ug/L | MW-10 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-10 | 09/25/2024 | | 5.2000 | | 5.6000 |
| Barium, total | ug/L | MW-10 | 09/25/2024 | | 575.0000 | | 769.2044 |
| Beryllium, total | ug/L | MW-10 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-10 | 09/25/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-10 | 09/25/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-10 | 09/25/2024 | | 2.4000 | | 30.6000 |
| Copper, total | ug/L | MW-10 | 09/25/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-10 | 09/25/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-10 | 09/25/2024 | | 11.7000 | | 60.4000 |
| Selenium, total | ug/L | MW-10 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-10 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-10 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-10 | 09/25/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-10 | 09/25/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-13 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-13 | 09/25/2024 | ND | 4.0000 | | 5.6000 |
| Barium, total | ug/L | MW-13 | 09/25/2024 | | 66.4000 | | 769.2044 |
| Beryllium, total | ug/L | MW-13 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-13 | 09/25/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-13 | 09/25/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-13 | 09/25/2024 | ND | 0.4000 | | 30.6000 |
| Copper, total | ug/L | MW-13 | 09/25/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-13 | 09/25/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-13 | 09/25/2024 | ND | 4.0000 | | 60.4000 |
| Selenium, total | ug/L | MW-13 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-13 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-13 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-13 | 09/25/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-13 | 09/25/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-14 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-14 | 09/25/2024 | ND | 4.0000 | | 5.6000 |
| Barium, total | ug/L | MW-14 | 09/25/2024 | | 112.0000 | | 769.2044 |
| Beryllium, total | ug/L | MW-14 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-14 | 09/25/2024 | | 3.5000 | * | 1.4000 |
| Chromium, total | ug/L | MW-14 | 09/25/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-14 | 09/25/2024 | | 0.4000 | | 30.6000 |
| Copper, total | ug/L | MW-14 | 09/25/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-14 | 09/25/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-14 | 09/25/2024 | | 4.1000 | | 60.4000 |
| Selenium, total | ug/L | MW-14 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-14 | 09/25/2024 | 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-14 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-14 | 09/25/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-14 | 09/25/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-16 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-16 | 09/25/2024 | | 26.2000 | *** | 5.6000 |
| Barium, total | ug/L | MW-16 | 09/25/2024 | | 756.0000 | | 769.2044 |
| Beryllium, total | ug/L | MW-16 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-16 | 09/25/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-16 | 09/25/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-16 | 09/25/2024 | | 1.7000 | | 30.6000 |
| Copper, total | ug/L | MW-16 | 09/25/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-16 | 09/25/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-16 | 09/25/2024 | | 36.0000 | | 60.4000 |
| Selenium, total | ug/L | MW-16 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-16 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-16 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-16 | 09/25/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-16 | 09/25/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-18 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-18 | 09/25/2024 | | 43.6000 | *** | 5.6000 |
| Barium, total | ug/L | MW-18 | 09/25/2024 | | 416.0000 | | 769.2044 |
| Beryllium, total | ug/L | MW-18 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-18 | 09/25/2024 | | 0.9000 | | 1.4000 |
| Chromium, total | ug/L | MW-18 | 09/25/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-18 | 09/25/2024 | | 1.0000 | | 30.6000 |
| Copper, total | ug/L | MW-18 | 09/25/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-18 | 09/25/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-18 | 09/25/2024 | | 5.4000 | | 60.4000 |
| Selenium, total | ug/L | MW-18 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-18 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-18 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-18 | 09/25/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-18 | 09/25/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-1D | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-1D | 09/25/2024 | ND | 4.0000 | | 5.6000 |
| Barium, total | ug/L | MW-1D | 09/25/2024 | | 637.0000 | ** | 769.2044 |
| Beryllium, total | ug/L | MW-1D | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-1D | 09/25/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-1D | 09/25/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-1D | 09/25/2024 | | 2.4000 | | 30.6000 |
| Copper, total | ug/L | MW-1D | 09/25/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-1D | 09/25/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-1D | 09/25/2024 | | 11.3000 | | 60.4000 |
| Selenium, total | ug/L | MW-1D | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-1D | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-1D | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-1D | 09/25/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-1D | 09/25/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-20 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-20 | 09/25/2024 | | 44.1000 | *** | 5.6000 |
| Barium, total | ug/L | MW-20 | 09/25/2024 | | 1950.0000 | *** | 769.2044 |
| Beryllium, total | ug/L | MW-20 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-20 | 09/25/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-20 | 09/25/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-20 | 09/25/2024 | | 6.4000 | | 30.6000 |
| Copper, total | ug/L | MW-20 | 09/25/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-20 | 09/25/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-20 | 09/25/2024 | | 18.0000 | | 60.4000 |
| Selenium, total | ug/L | MW-20 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-20 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-20 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-20 | 09/25/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-20 | 09/25/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-3 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-3 | 09/25/2024 | ND | 4.0000 | | 5.6000 |
| Barium, total | ug/L | MW-3 | 09/25/2024 | | 295.0000 | | 769.2044 |
| Beryllium, total | ug/L | MW-3 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-3 | 09/25/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-3 | 09/25/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-3 | 09/25/2024 | ND | 0.4000 | | 30.6000 |
| Copper, total | ug/L | MW-3 | 09/25/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-3 | 09/25/2024 | ND | 4.0000 | | 7.4000 |

* - 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 |
|---|---|---|---|---|---|---|---|
| Nickel, total | ug/L | MW-3 | 09/25/2024 | ND | 4.0000 | | 60.4000 |
| Selenium, total | ug/L | MW-3 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-3 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-3 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-3 | 09/25/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-3 | 09/25/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-53 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-53 | 09/25/2024 | ND | 4.0000 | | 5.6000 |
| Barium, total | ug/L | MW-53 | 09/25/2024 | | 58.9000 | | 769.2044 |
| Beryllium, total | ug/L | MW-53 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-53 | 09/25/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-53 | 09/25/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-53 | 09/25/2024 | ND | 0.4000 | | 30.6000 |
| Copper, total | ug/L | MW-53 | 09/25/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-53 | 09/25/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-53 | 09/25/2024 | ND | 4.0000 | | 60.4000 |
| Selenium, total | ug/L | MW-53 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-53 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-53 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-53 | 09/25/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-53 | 09/25/2024 | ND | 20.0000 | | 69.2000 |
| Antimony, total | ug/L | MW-7 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Arsenic, total | ug/L | MW-7 | 09/25/2024 | | 9.0000 | * | 5.6000 |
| Barium, total | ug/L | MW-7 | 09/25/2024 | | 321.0000 | | 769.2044 |
| Beryllium, total | ug/L | MW-7 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Cadmium, total | ug/L | MW-7 | 09/25/2024 | ND | 0.8000 | | 1.4000 |
| Chromium, total | ug/L | MW-7 | 09/25/2024 | ND | 8.0000 | | 8.9000 |
| Cobalt, total | ug/L | MW-7 | 09/25/2024 | | 10.1000 | | 30.6000 |
| Copper, total | ug/L | MW-7 | 09/25/2024 | ND | 4.0000 | | 11.6000 |
| Lead, total | ug/L | MW-7 | 09/25/2024 | ND | 4.0000 | | 7.4000 |
| Nickel, total | ug/L | MW-7 | 09/25/2024 | | 16.6000 | | 60.4000 |
| Selenium, total | ug/L | MW-7 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Silver, total | ug/L | MW-7 | 09/25/2024 | ND | 4.0000 | | 4.0000 |
| Thallium, total | ug/L | MW-7 | 09/25/2024 | ND | 2.0000 | | 2.0000 |
| Vanadium, total | ug/L | MW-7 | 09/25/2024 | ND | 20.0000 | | 20.0000 |
| Zinc, total | ug/L | MW-7 | 09/25/2024 | ND | 20.0000 | | 69.2000 |

* - 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 | 0 | 42 | 0.000 | 7 | 296 | 0.024 |
| Arsenic, total | 1 | 42 | 0.024 | 141 | 298 | 0.473 |
| Barium, total | 42 | 42 | 1.000 | 297 | 297 | 1.000 |
| Beryllium, total | 0 | 42 | 0.000 | 4 | 296 | 0.014 |
| Cadmium, total | 3 | 42 | 0.071 | 23 | 297 | 0.077 |
| Chromium, total | 1 | 42 | 0.024 | 28 | 296 | 0.095 |
| Cobalt, total | 11 | 42 | 0.262 | 167 | 296 | 0.564 |
| Copper, total | 2 | 42 | 0.048 | 66 | 296 | 0.223 |
| Lead, total | 3 | 42 | 0.071 | 44 | 296 | 0.149 |
| Nickel, total | 12 | 42 | 0.286 | 246 | 296 | 0.831 |
| Selenium, total | 0 | 42 | 0.000 | 38 | 299 | 0.127 |
| Silver, total | 0 | 42 | 0.000 | 0 | 296 | 0.000 |
| Thallium, total | 0 | 42 | 0.000 | 1 | 296 | 0.003 |
| Vanadium, total | 0 | 42 | 0.000 | 28 | 296 | 0.095 |
| Zinc, total | 9 | 42 | 0.214 | 97 | 296 | 0.328 |

N = Total number of measurements in all wells.
Detect = Total number of detections in all wells.
Proportion = Detect/N.

## Table 4

### Shapiro-Wilk Multiple Group Test of Normality

| Constituent | Detect | N | Detect Freq | G raw | G log | G cbrt | G sqrt | G sqr | G cub | Crit Value | Dist Form | Model Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony, total | 0 | 42 | 0.000 | | | | | | | | | nonpar |
| Arsenic, total | 1 | 42 | 0.024 | | | | | | | | | nonpar |
| Barium, total | 42 | 42 | 1.000 | 0.352 | 0.848 | | | | | 2.326 | normal | normal |
| Beryllium, total | 0 | 42 | 0.000 | | | | | | | | | nonpar |
| Cadmium, total | 3 | 42 | 0.071 | | | | | | | | | nonpar |
| Chromium, total | 1 | 42 | 0.024 | | | | | | | | | nonpar |
| Cobalt, total | 11 | 42 | 0.262 | 2.030 | 0.246 | | | | | 2.326 | normal | nonpar |
| Copper, total | 2 | 42 | 0.048 | | | | | | | | | nonpar |
| Lead, total | 3 | 42 | 0.071 | | | | | | | | | nonpar |
| Nickel, total | 12 | 42 | 0.286 | 2.926 | 1.116 | | | | | 2.326 | lognor | nonpar |
| Selenium, total | 0 | 42 | 0.000 | | | | | | | | | nonpar |
| Silver, total | 0 | 42 | 0.000 | | | | | | | | | nonpar |
| Thallium, total | 0 | 42 | 0.000 | | | | | | | | | nonpar |
| Vanadium, total | 0 | 42 | 0.000 | | | | | | | | | nonpar |
| Zinc, total | 9 | 42 | 0.214 | 0.938 | 0.094 | | | | | 2.326 | normal | nonpar |

* - Distribution override for that constituent.
Fit to distribution is confirmed if G <= critical value.
Model type may not match distributional form when detection frequency < 50%.

## Table 5

## Summary Statistics and Prediction Limits

| Constituent | Units | Detect | N | Mean | SD | alpha | Factor | Pred Limit | Type | | Conf |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony, total | ug/L | 0 | 42 | | | | | 2.0000 | nonpar | *** | 0.99 |
| Arsenic, total | ug/L | 1 | 42 | | | | | 5.6000 | nonpar | | 0.99 |
| Barium, total | ug/L | 42 | 42 | 258.9714 | 208.3134 | 0.0100 | 2.4494 | 769.2044 | normal | | |
| Beryllium, total | ug/L | 0 | 42 | | | | | 4.0000 | nonpar | *** | 0.99 |
| Cadmium, total | ug/L | 3 | 42 | | | | | 1.4000 | nonpar | | 0.99 |
| Chromium, total | ug/L | 1 | 42 | | | | | 8.9000 | nonpar | | 0.99 |
| Cobalt, total | ug/L | 11 | 42 | | | | | 30.6000 | nonpar | | 0.99 |
| Copper, total | ug/L | 2 | 42 | | | | | 11.6000 | nonpar | | 0.99 |
| Lead, total | ug/L | 3 | 42 | | | | | 7.4000 | nonpar | | 0.99 |
| Nickel, total | ug/L | 12 | 42 | | | | | 60.4000 | nonpar | | 0.99 |
| Selenium, total | ug/L | 0 | 42 | | | | | 4.0000 | nonpar | *** | 0.99 |
| Silver, total | ug/L | 0 | 42 | | | | | 4.0000 | nonpar | *** | 0.99 |
| Thallium, total | ug/L | 0 | 42 | | | | | 2.0000 | nonpar | *** | 0.99 |
| Vanadium, total | ug/L | 0 | 42 | | | | | 20.0000 | nonpar | *** | 0.99 |
| Zinc, total | ug/L | 9 | 42 | | | | | 69.2000 | nonpar | | 0.99 |

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).
* - Insufficient Data.
** - Calculated limit raised to Manual Reporting Limit.
*** - Nonparametric limit based on ND value.
For transformed data, mean and SD in transformed units and prediction limit in original units.
All sample sizes and statistics are based on outlier free data.
For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

## Table 6

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

| Constituent | Units | Well | Date | Result | ND Qualifier | Date Range | N | Critical Value |
|---|---|---|---|---|---|---|---|---|

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 |
|---|---|---|---|---|---|---|---|
| Selenium, total | ug/L | GU 3 | 08/01/2024 | ND | 4.0000 | | 4.0000 |
| Selenium, total | ug/L | GU 3 | 09/25/2024 | | 4.0000 | ** | 4.0000 |
| Zinc, total | ug/L | GU 3 | 08/01/2024 | | 173.0000 | * | 69.2000 |
| Zinc, total | ug/L | GU 3 | 09/25/2024 | ND | 20.0000 | | 69.2000 |
| Zinc, total | ug/L | GU 4 | 08/01/2024 | | 67.2000 | | 69.2000 |
| Zinc, total | ug/L | GU 4 | 09/25/2024 | | 106.0000 | * | 69.2000 |
| Cadmium, total | ug/L | MW-14 | 04/16/2008 | ND | 1.0000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 06/17/2008 | | 1.0000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 08/20/2008 | ND | 1.0000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 10/16/2008 | ND | 1.0000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 12/04/2008 | ND | 1.0000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 03/16/2009 | | 1.1000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 09/24/2009 | | 1.3000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 04/19/2010 | ND | 1.0000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 09/29/2010 | | 1.2000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 05/04/2011 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 10/10/2011 | | 1.1000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 04/24/2012 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 09/10/2012 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 04/04/2013 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 10/10/2013 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 04/22/2014 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 09/18/2014 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 04/28/2015 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 10/06/2015 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 04/23/2016 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 09/01/2016 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 03/22/2017 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 10/13/2017 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 03/09/2018 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 09/06/2018 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 03/07/2019 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 09/26/2019 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 04/02/2020 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 09/17/2020 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 03/25/2021 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 09/16/2021 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 03/16/2022 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 09/01/2022 | | 3.9000 | * | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 11/29/2022 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 03/24/2023 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 09/07/2023 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 03/18/2024 | ND | 0.8000 | | 1.4000 |
| Cadmium, total | ug/L | MW-14 | 09/25/2024 | | 3.5000 | * | 1.4000 |
| Arsenic, total | ug/L | MW-16 | 04/16/2008 | | 39.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 06/17/2008 | | 28.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 08/20/2008 | | 35.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 10/16/2008 | | 36.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 12/04/2008 | | 40.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/16/2009 | | 37.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/24/2009 | | 33.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/19/2010 | | 33.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/29/2010 | | 32.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 05/03/2011 | | 33.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 10/11/2011 | | 39.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/23/2012 | | 42.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/10/2012 | | 39.5000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/04/2013 | | 23.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 10/11/2013 | | 35.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/23/2014 | | 37.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/18/2014 | | 34.3000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/29/2015 | | 38.5000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 10/06/2015 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/23/2016 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/01/2016 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/22/2017 | | 9.3000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 10/13/2017 | | 19.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/09/2018 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/06/2018 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/26/2019 | | 6.3000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 04/02/2020 | | 9.3000 | * | 5.6000 |

* - 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 |
|---|---|---|---|---|---|---|---|
| Arsenic, total | ug/L | MW-16 | 09/17/2020 | | 6.5000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/25/2021 | | 21.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/16/2021 | | 10.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/16/2022 | | 26.5000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/01/2022 | | 4.7000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/24/2023 | | 4.3000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/07/2023 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 03/18/2024 | | 20.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-16 | 09/25/2024 | | 26.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/19/2010 | | 64.6000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 05/27/2010 | | 19.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 07/28/2010 | | 29.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/29/2010 | | 173.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 11/03/2010 | | 225.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 05/04/2011 | | 11.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 10/11/2011 | | 8.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/23/2012 | | 29.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/11/2012 | | 15.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/04/2013 | | 9.6000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 10/11/2013 | | 17.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/23/2014 | | 9.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/17/2014 | | 22.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/28/2015 | | 45.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 10/06/2015 | | 39.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/23/2016 | | 51.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/01/2016 | | 81.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/21/2017 | | 49.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 10/13/2017 | | 50.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/09/2018 | | 46.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/06/2018 | | 74.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/07/2019 | | 87.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/26/2019 | | 99.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 04/02/2020 | | 81.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/17/2020 | | 34.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/25/2021 | | 9.6000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/16/2021 | | 36.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/16/2022 | | 34.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/01/2022 | | 24.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/24/2023 | | 67.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/07/2023 | | 26.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 03/18/2024 | | 23.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-18 | 09/25/2024 | | 43.6000 | * | 5.6000 |
| Barium, total | ug/L | MW-1D | 09/07/2023 | | 660.0000 | | 769.2044 |
| Barium, total | ug/L | MW-1D | 03/18/2024 | | 784.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-1D | 09/25/2024 | | 637.0000 | | 769.2044 |
| Arsenic, total | ug/L | MW-20 | 04/19/2010 | | 165.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 05/27/2010 | | 144.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 07/28/2010 | | 165.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/29/2010 | | 86.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 11/03/2010 | | 64.3000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 05/04/2011 | | 47.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 10/11/2011 | | 60.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 04/24/2012 | | 44.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/11/2012 | | 59.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 04/05/2013 | | 37.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 10/11/2013 | | 61.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 04/23/2014 | | 55.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/18/2014 | | 75.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 04/28/2015 | | 45.5000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 10/06/2015 | | 81.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 04/23/2016 | | 81.5000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/01/2016 | | 77.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/21/2017 | | 79.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 10/13/2017 | | 96.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/09/2018 | | 83.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/06/2018 | | 99.6000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/07/2019 | | 78.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/26/2019 | | 83.6000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 04/02/2020 | | 65.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/17/2020 | | 87.1000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/25/2021 | | 106.0000 | * | 5.6000 |

* - 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 |
|---|---|---|---|---|---|---|---|
| Arsenic, total | ug/L | MW-20 | 09/16/2021 | | 87.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/16/2022 | | 127.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/01/2022 | | 133.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/24/2023 | | 94.6000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/07/2023 | | 83.4000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 03/18/2024 | | 112.0000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-20 | 09/25/2024 | | 44.1000 | * | 5.6000 |
| Barium, total | ug/L | MW-20 | 04/19/2010 | | 3790.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 05/27/2010 | | 4800.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 07/28/2010 | | 4410.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 09/29/2010 | | 3800.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 11/03/2010 | | 3500.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 05/04/2011 | | 2990.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 10/11/2011 | | 3010.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 04/24/2012 | | 1850.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 09/11/2012 | | 2060.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 04/05/2013 | | 2910.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 10/11/2013 | | 2470.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 04/23/2014 | | 1830.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 09/18/2014 | | 2370.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 04/28/2015 | | 2390.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 10/06/2015 | | 2490.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 04/23/2016 | | 2260.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 09/01/2016 | | 2140.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 03/21/2017 | | 2140.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 10/13/2017 | | 2340.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 03/09/2018 | | 2010.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 09/06/2018 | | 2360.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 03/07/2019 | | 2100.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 09/26/2019 | | 2350.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 04/02/2020 | | 2300.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 09/17/2020 | | 1970.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 03/25/2021 | | 1970.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 09/16/2021 | | 2160.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 03/16/2022 | | 1890.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 09/01/2022 | | 2020.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 03/24/2023 | | 2000.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 09/07/2023 | | 1810.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 03/18/2024 | | 2110.0000 | * | 769.2044 |
| Barium, total | ug/L | MW-20 | 09/25/2024 | | 1950.0000 | * | 769.2044 |
| Arsenic, total | ug/L | MW-7 | 04/16/2008 | ND | 5.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 06/17/2008 | ND | 5.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 08/20/2008 | ND | 5.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 10/16/2008 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 12/04/2008 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/16/2009 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/24/2009 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/19/2010 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/29/2010 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 05/03/2011 | | 4.3000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 10/10/2011 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/23/2012 | | 4.9000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/10/2012 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/04/2013 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 10/10/2013 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/22/2014 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/17/2014 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/28/2015 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 10/06/2015 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/23/2016 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/01/2016 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/22/2017 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 10/13/2017 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/09/2018 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/06/2018 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/07/2019 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/26/2019 | | 8.2000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 12/17/2019 | | 4.7000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 04/02/2020 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/17/2020 | | 6.9000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 12/03/2020 | | 7.2000 | * | 5.6000 |

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

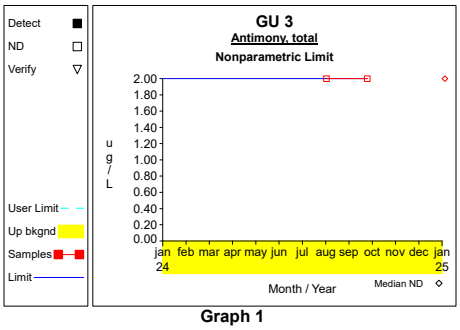
## Table 8

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

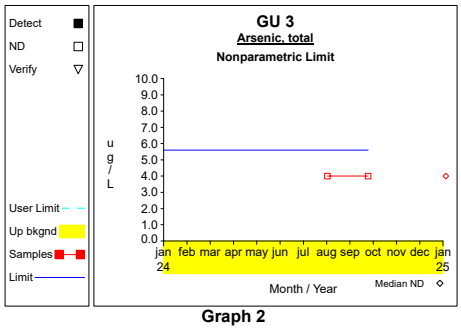
| Constituent | Units | Well | Date | | Result | | Pred. Limit |
|---|---|---|---|---|---|---|---|
| Arsenic, total | ug/L | MW-7 | 03/25/2021 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/16/2021 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/16/2022 | | 4.3000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/01/2022 | | 5.7000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/24/2023 | ND | 4.0000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/07/2023 | | 8.8000 | * | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 03/18/2024 | | 5.4000 | | 5.6000 |
| Arsenic, total | ug/L | MW-7 | 09/25/2024 | | 9.0000 | * | 5.6000 |

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

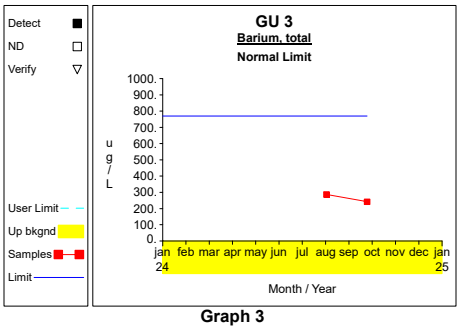
# Up vs. Down Prediction Limits



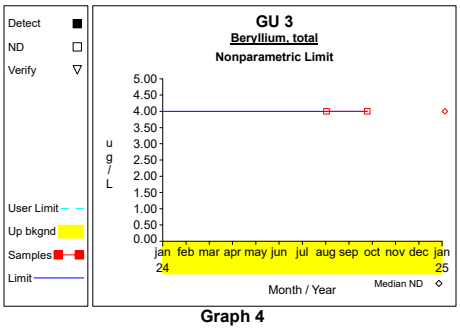

Graph 1



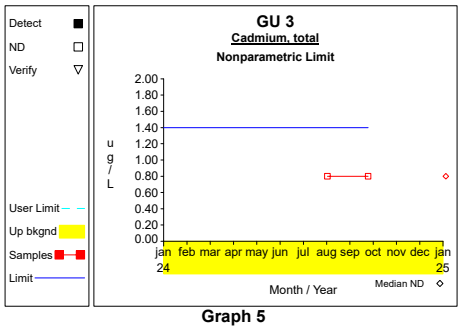

Graph 2



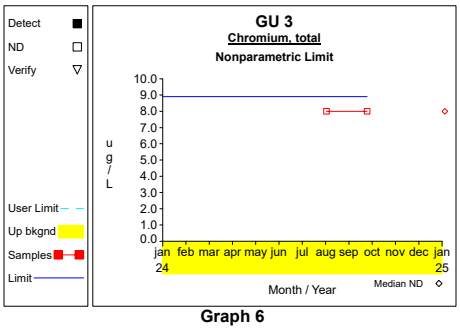

Graph 3



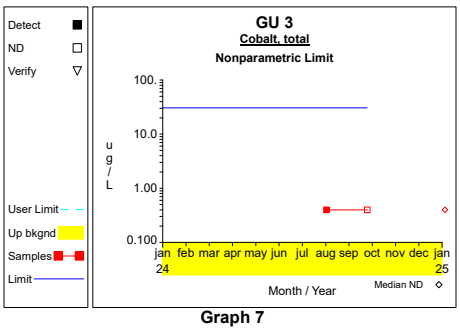

Graph 4



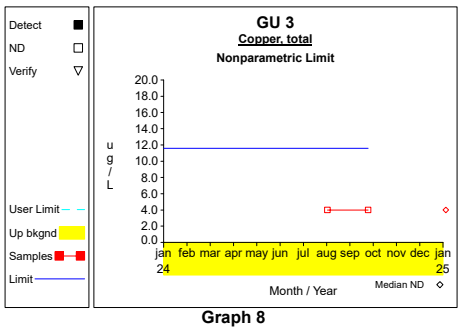

Graph 5



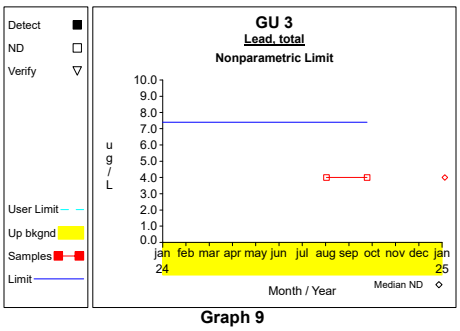

Graph 6



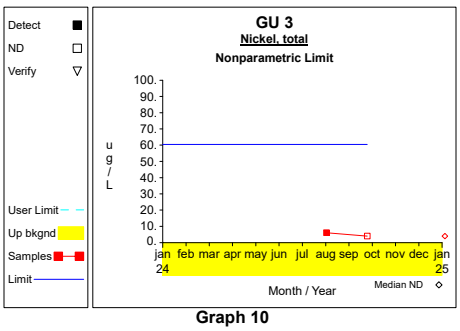

Graph 7



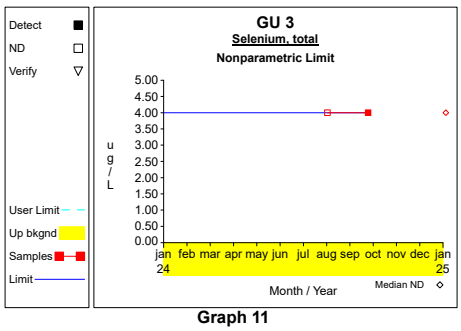

Graph 8



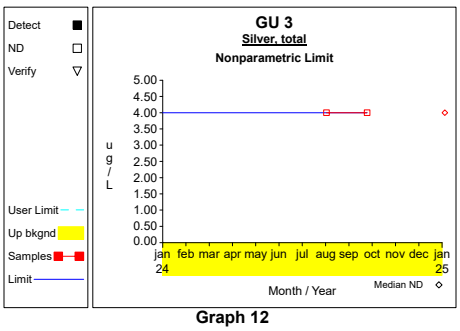

Graph 9



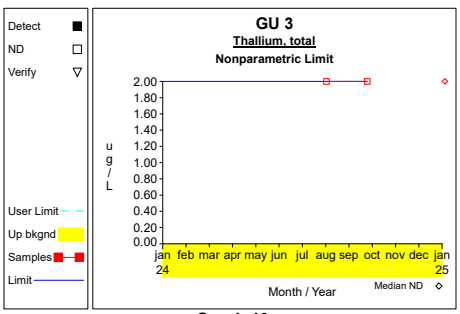

Graph 10



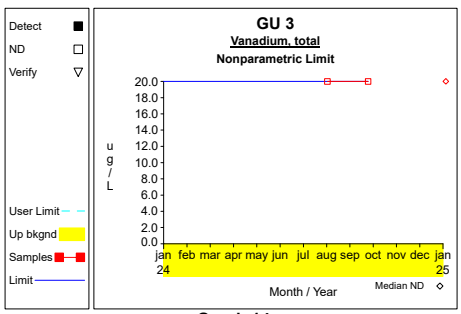

Graph 11



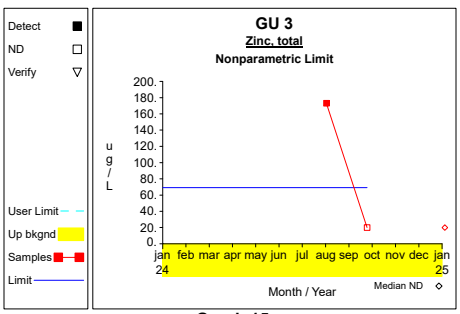

Graph 12




Graph 13




Graph 14




Graph 15

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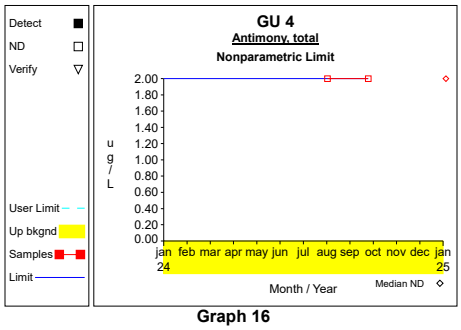
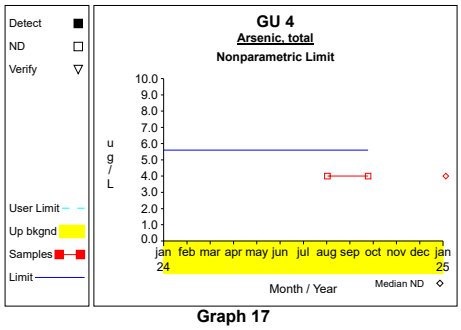
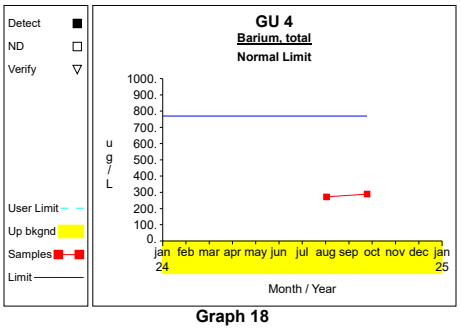
# Up vs. Down Prediction Limits



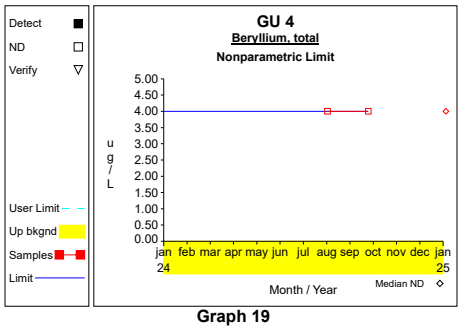

Graph 16



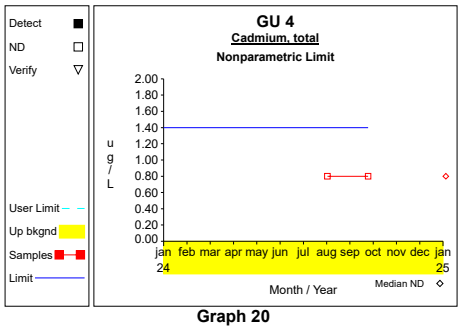

Graph 17



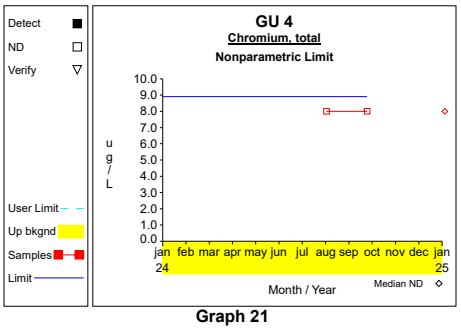

Graph 18



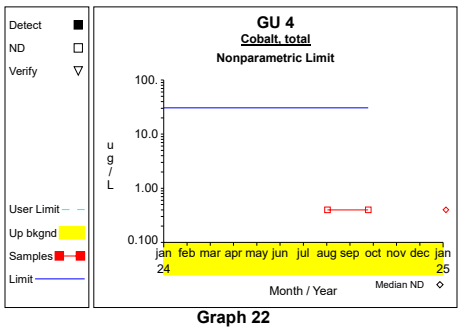

Graph 19



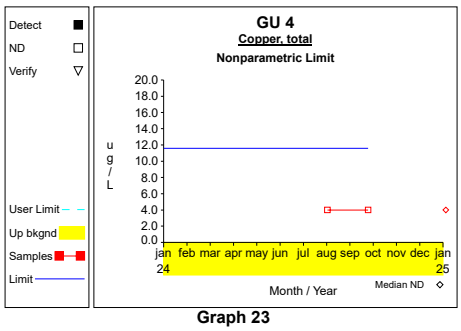

Graph 20



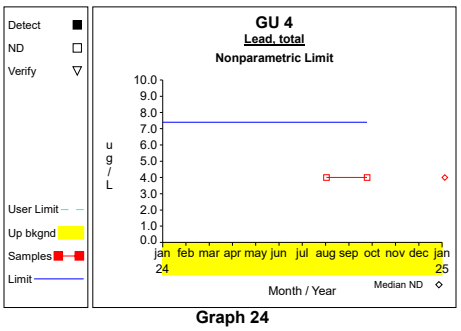

Graph 21



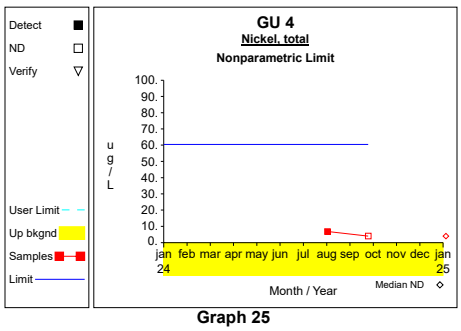

Graph 22



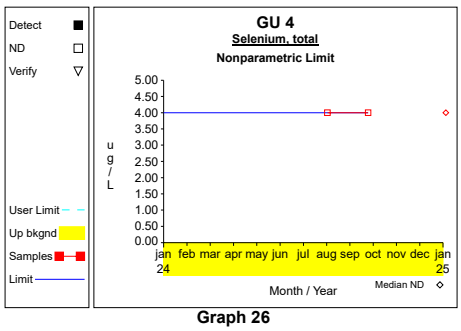

Graph 23



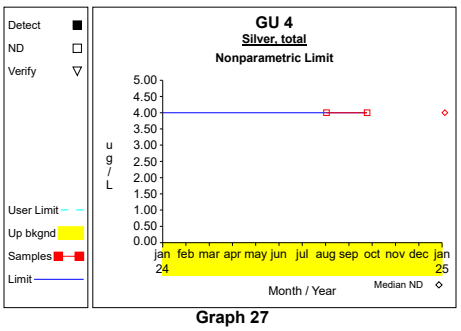

Graph 24



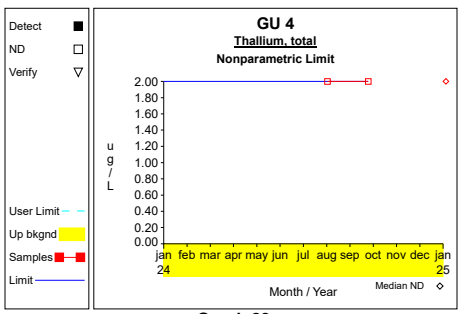

Graph 25



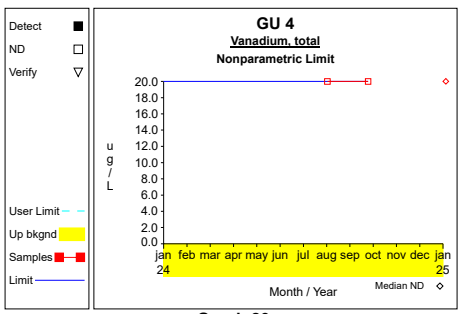

Graph 26



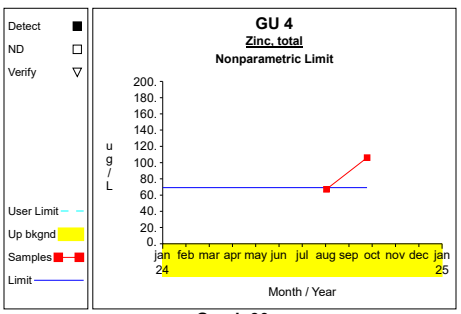

Graph 27




Graph 28




Graph 29




Graph 30

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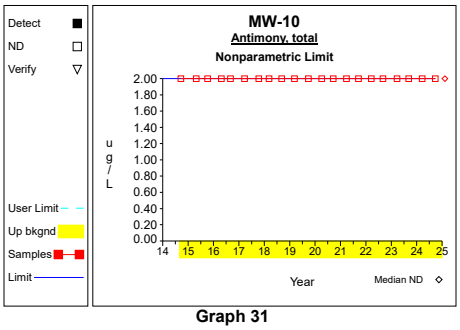
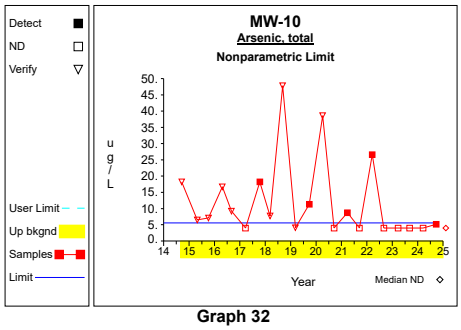
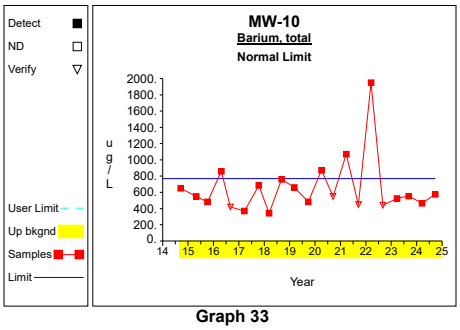
# Up vs. Down Prediction Limits



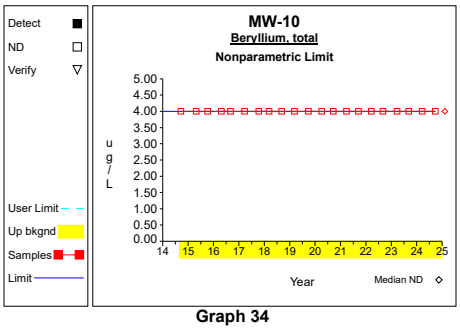

Graph 31



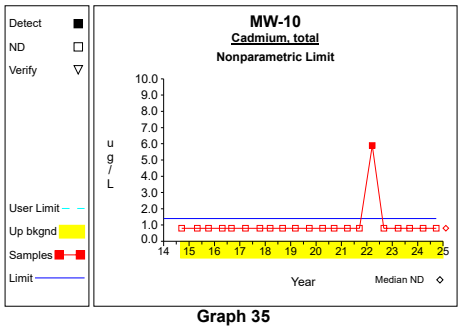

Graph 32



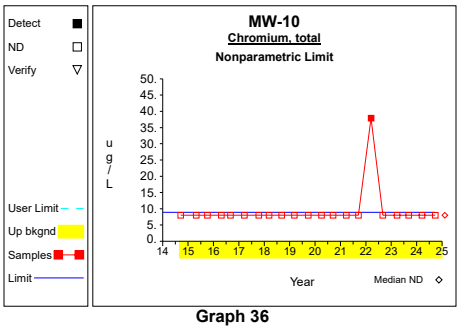

Graph 33



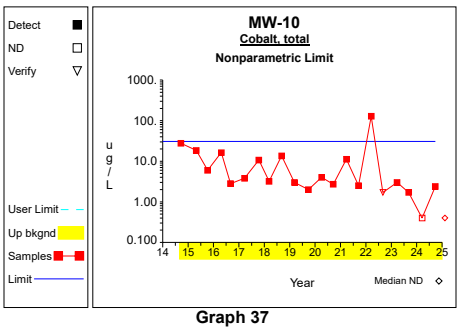

Graph 34



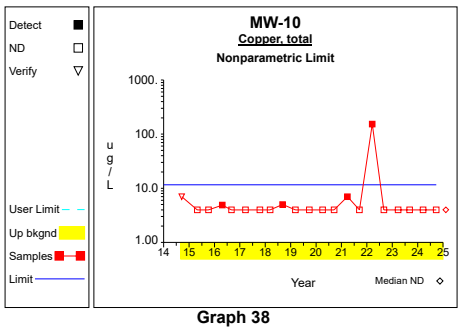

Graph 35



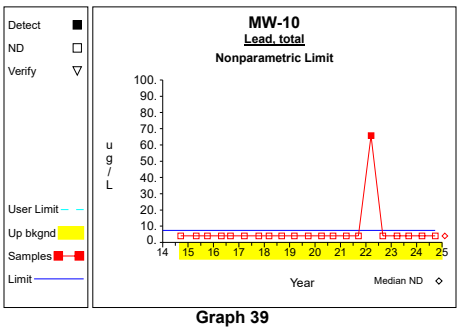

Graph 36



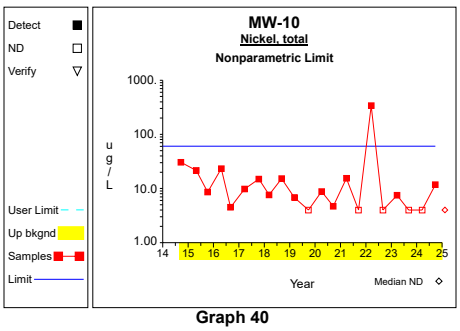

Graph 37



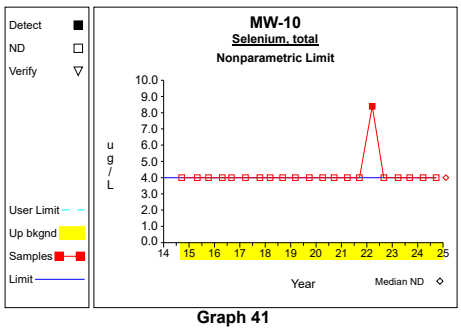

Graph 38



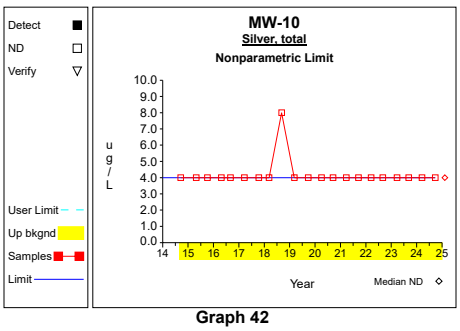

Graph 39



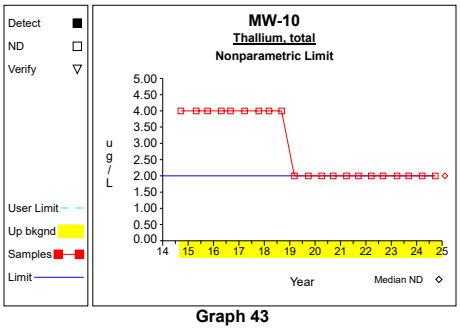

Graph 40



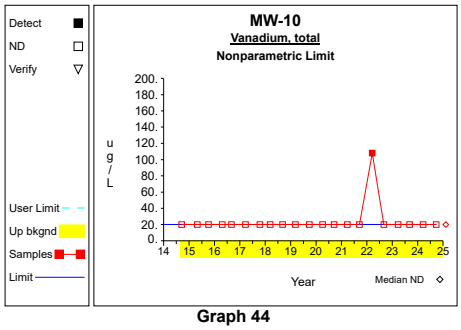

Graph 41



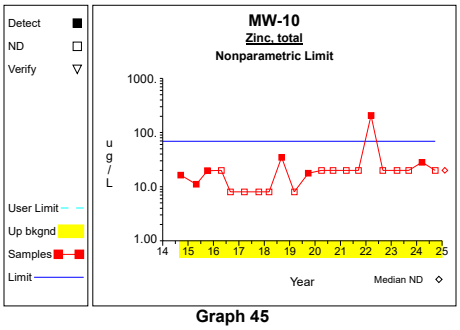

Graph 42




Graph 43




Graph 44




Graph 45

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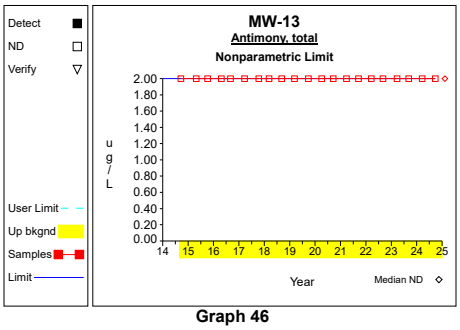
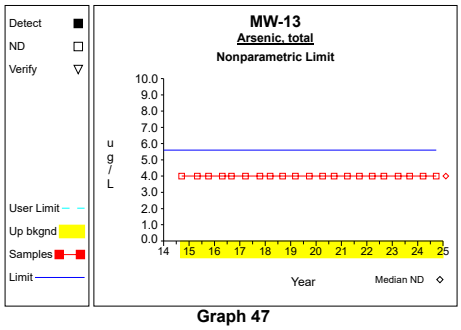
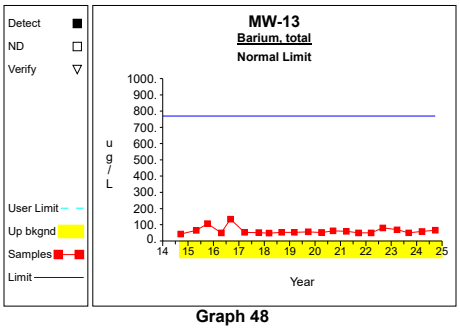
# Up vs. Down Prediction Limits



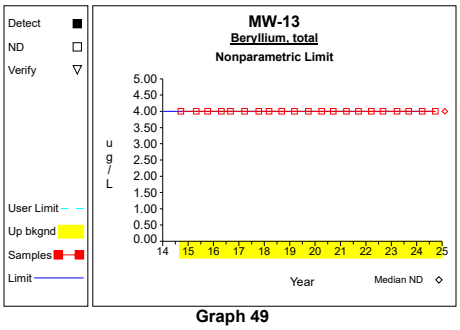

Graph 46



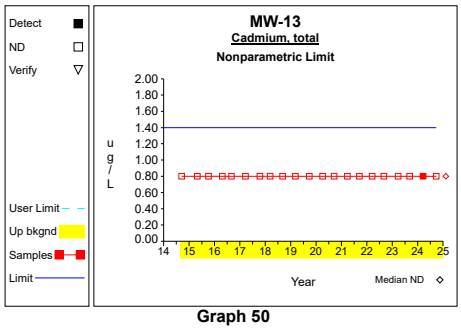

Graph 47



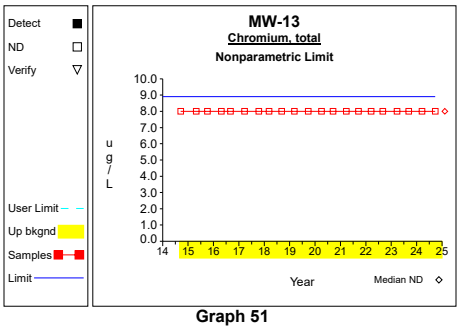

Graph 48



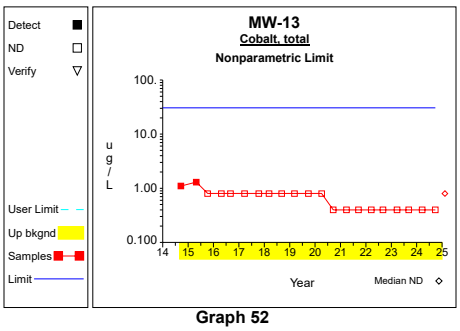

Graph 49



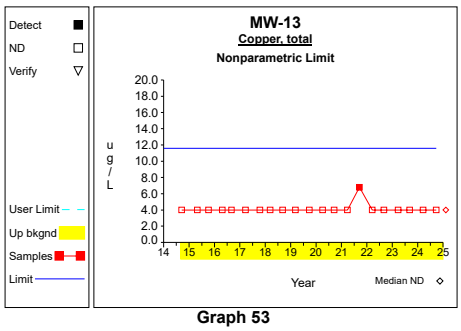

Graph 50



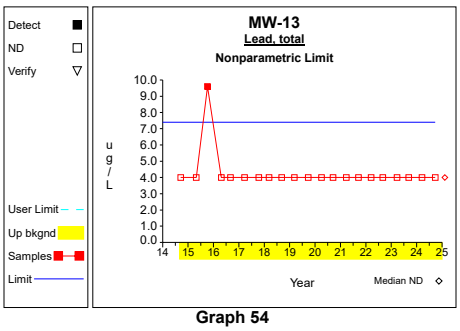

Graph 51



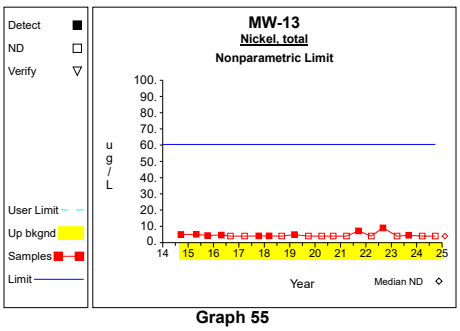

Graph 52



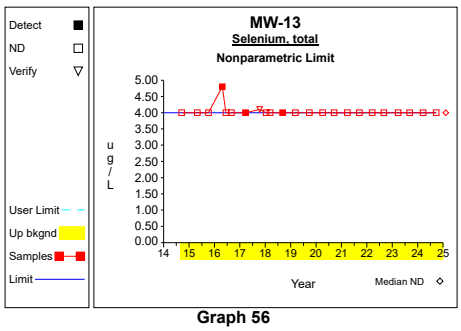

Graph 53



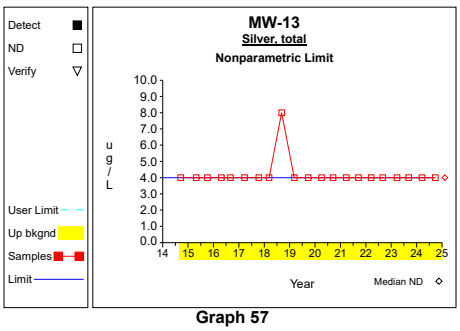

Graph 54



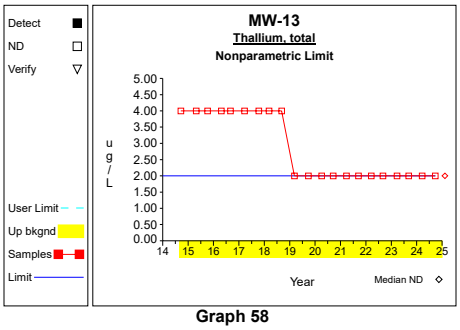

Graph 55



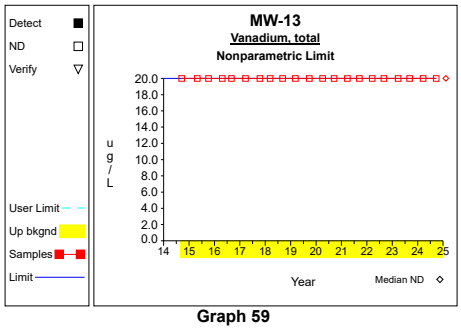

Graph 56



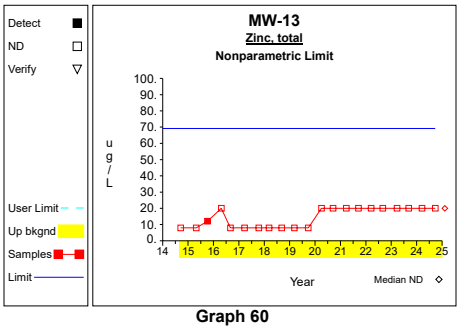

Graph 57




Graph 58




Graph 59




Graph 60

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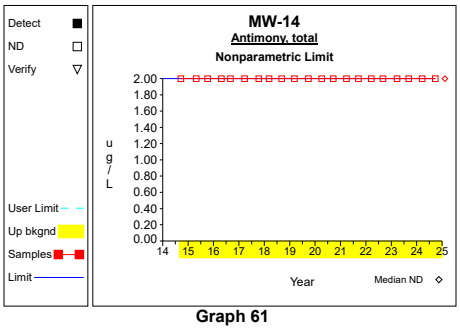
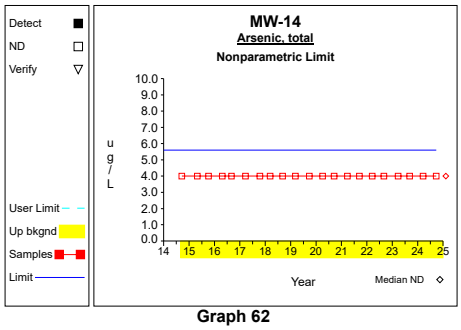
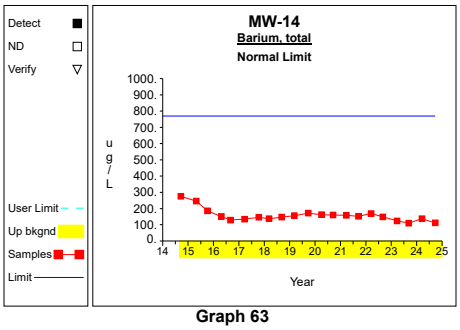
# Up vs. Down Prediction Limits



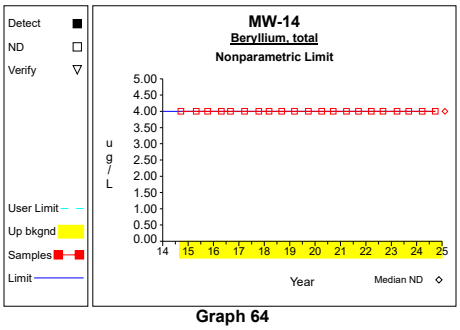

Graph 61



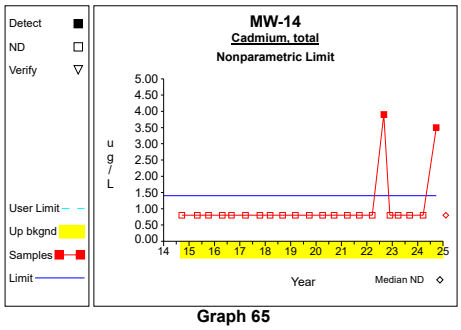

Graph 62



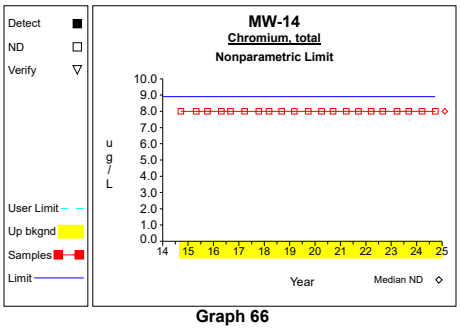

Graph 63



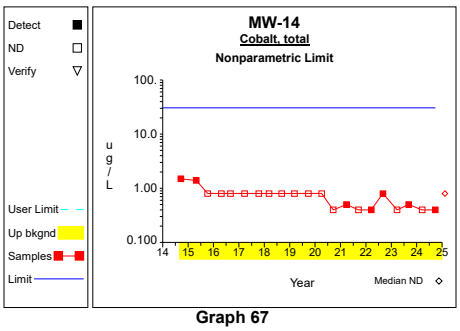

Graph 64



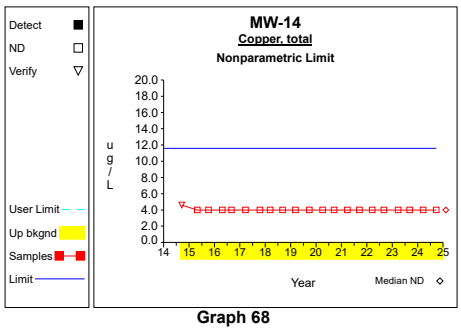

Graph 65



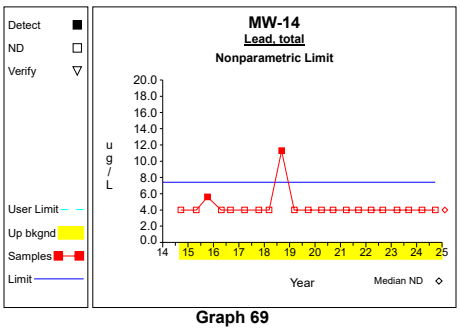

Graph 66



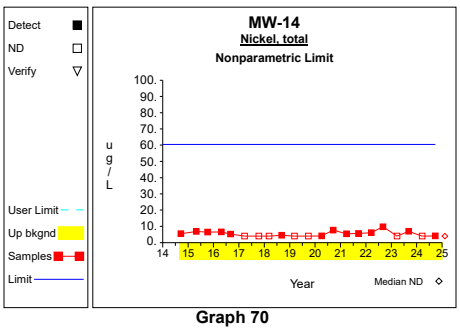

Graph 67



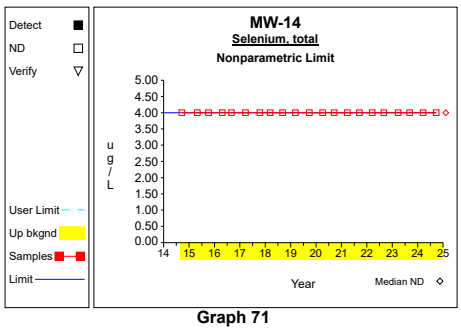

Graph 68



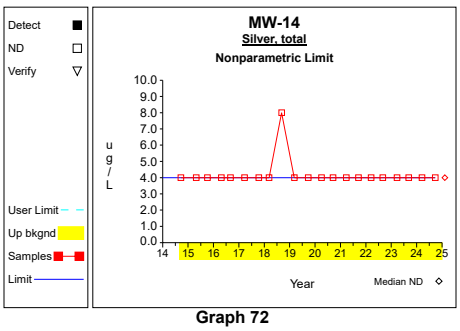

Graph 69



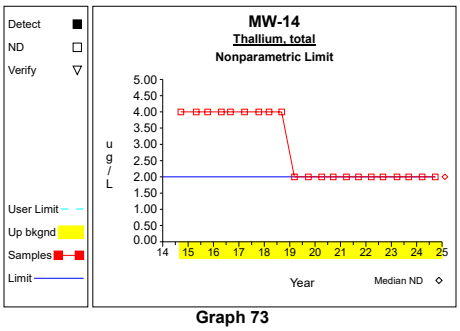

Graph 70



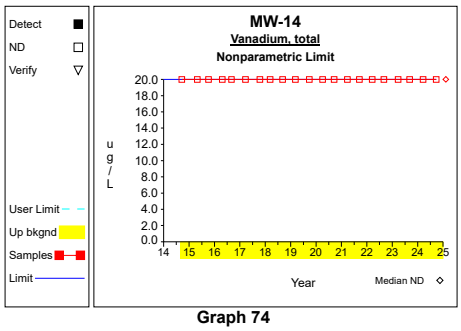

Graph 71



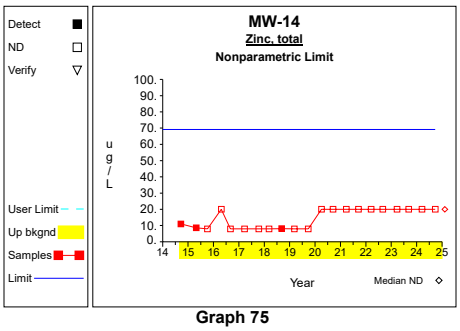

Graph 72




Graph 73




Graph 74




Graph 75

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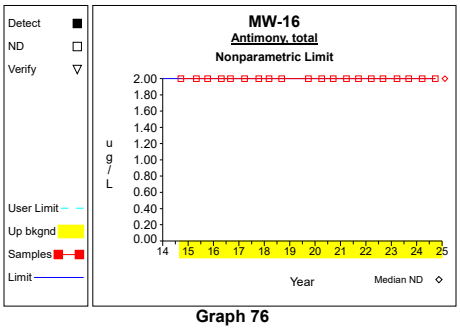
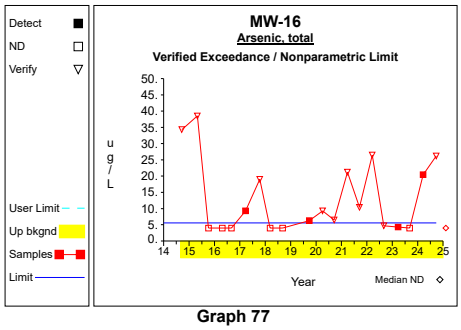
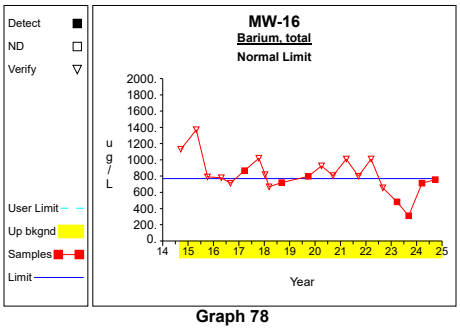
# Up vs. Down Prediction Limits



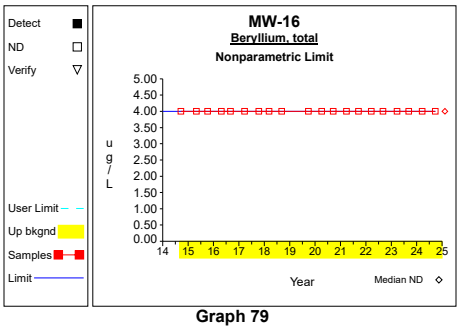

Graph 76



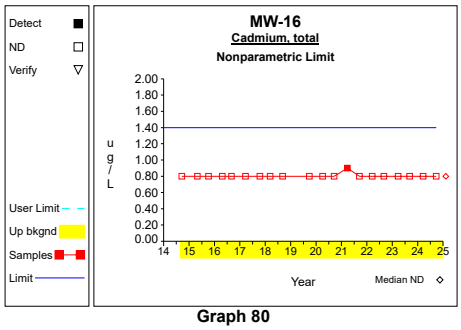

Graph 77



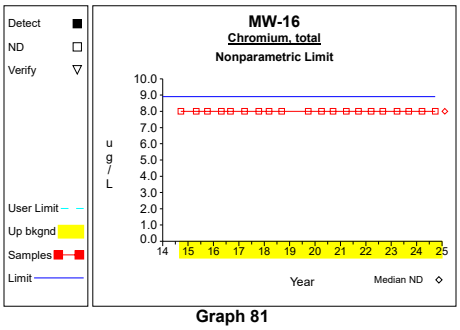

Graph 78



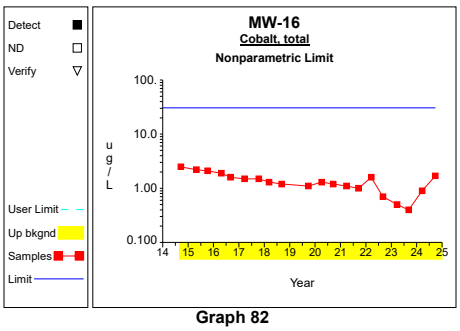

Graph 79



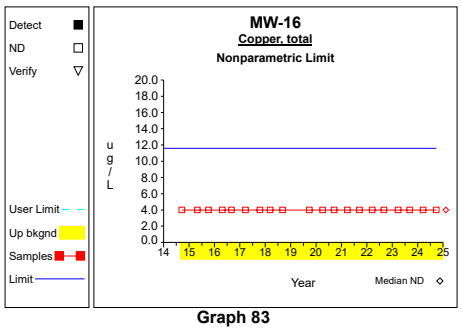

Graph 80



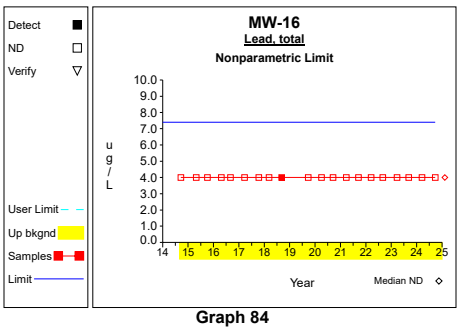

Graph 81



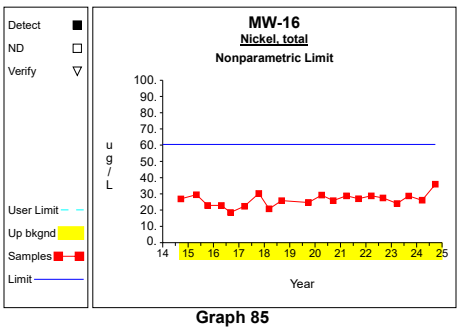

Graph 82



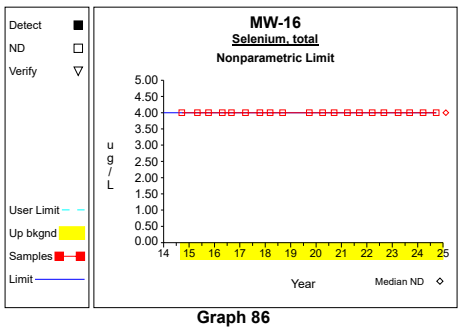

Graph 83



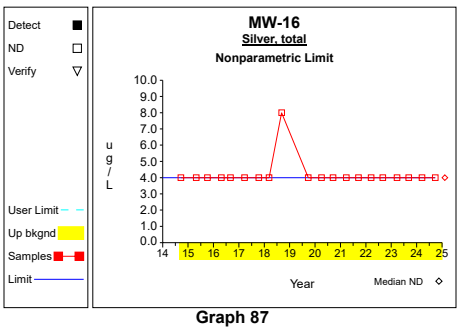

Graph 84



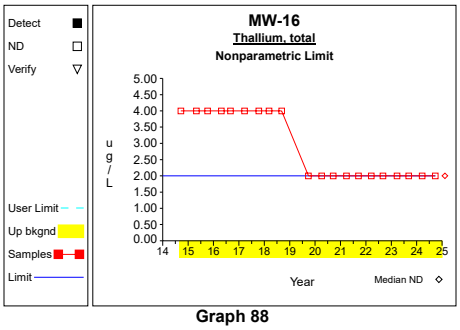

Graph 85



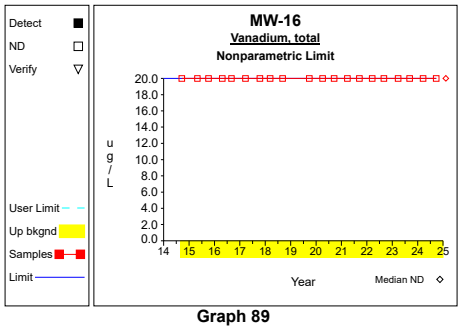

Graph 86



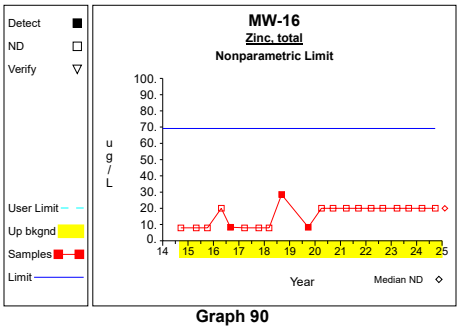

Graph 87




Graph 88




Graph 89




Graph 90

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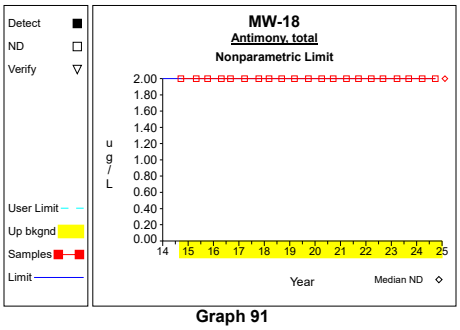
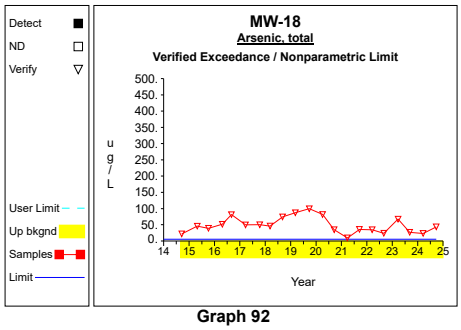
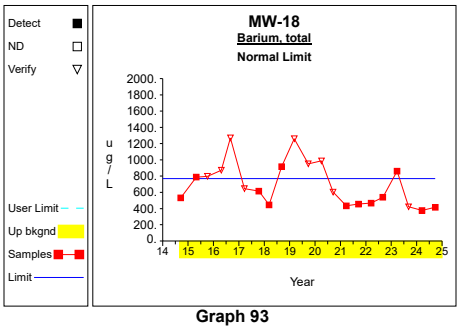
# Up vs. Down Prediction Limits



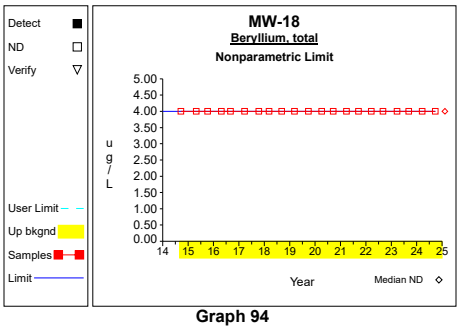

Graph 91



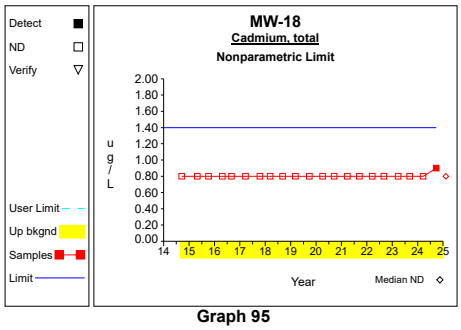

Graph 92



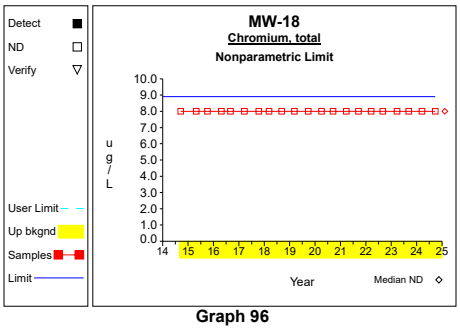

Graph 93



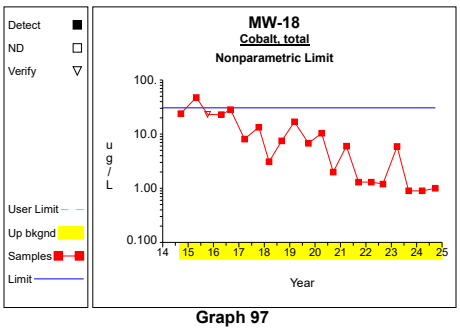

Graph 94



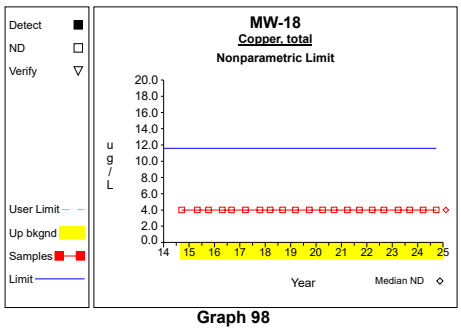

Graph 95



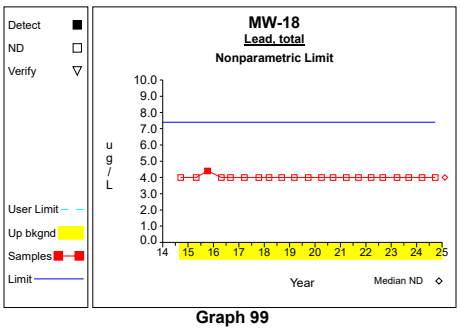

Graph 96



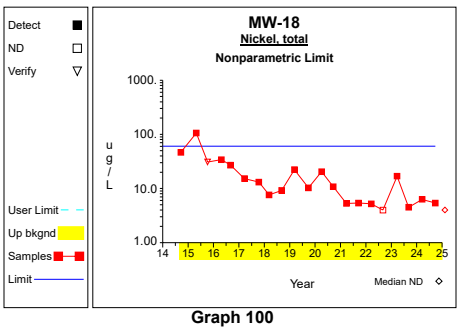

Graph 97



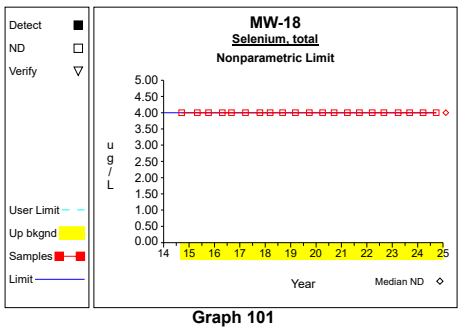

Graph 98



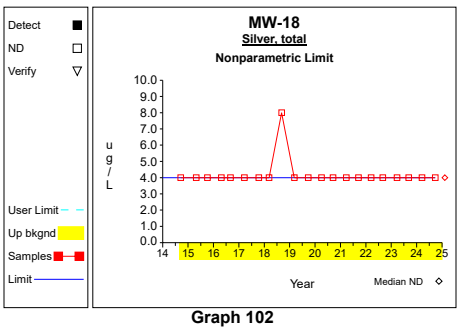

Graph 99



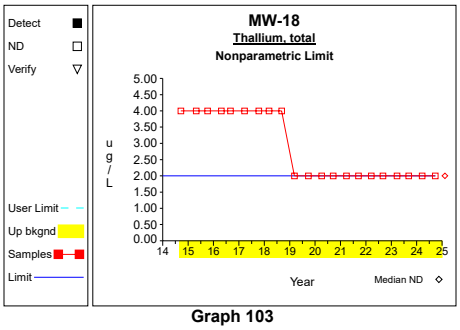

Graph 100



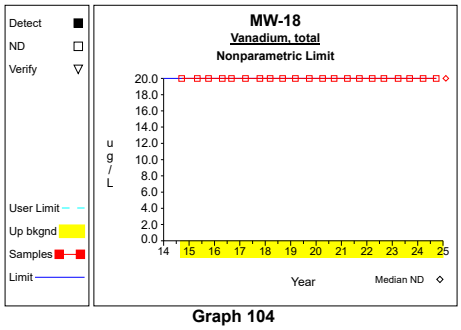

Graph 101



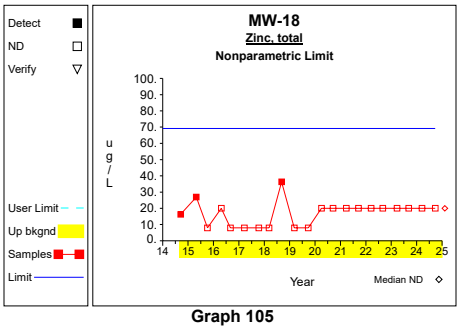

Graph 102




Graph 103




Graph 104




Graph 105

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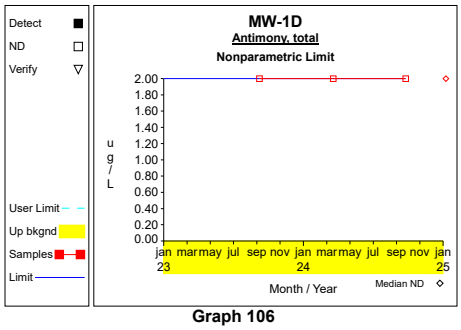
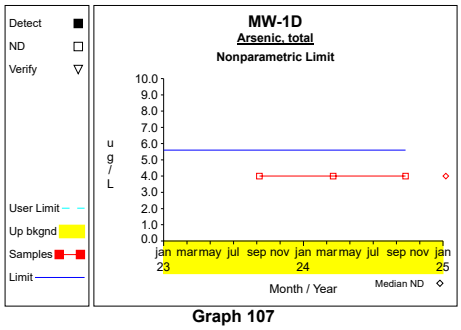
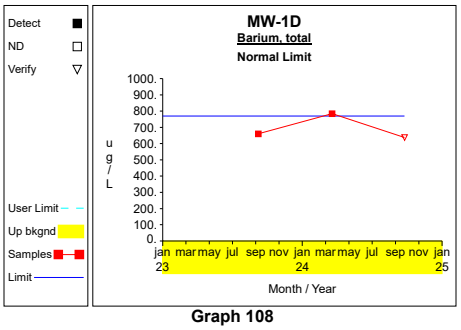
# Up vs. Down Prediction Limits



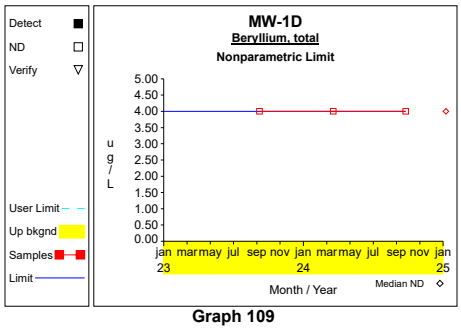

Graph 106



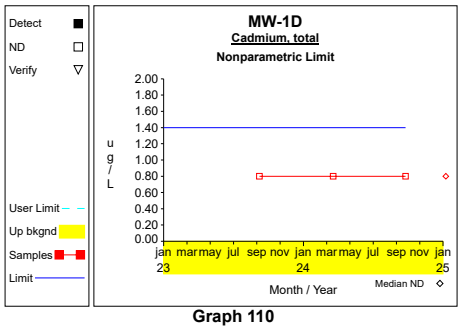

Graph 107



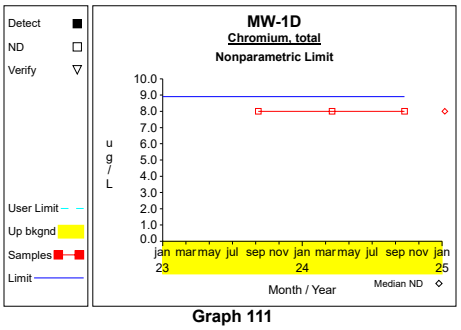

Graph 108



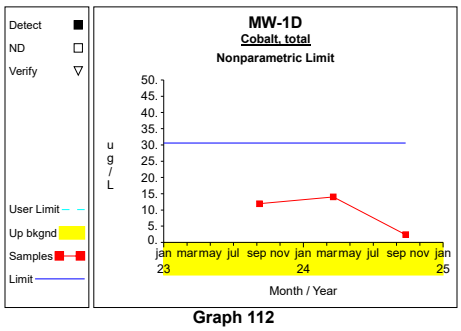

Graph 109



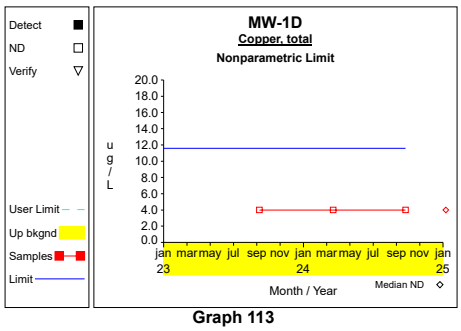

Graph 110



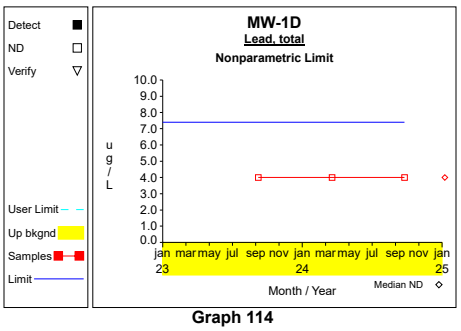

Graph 111



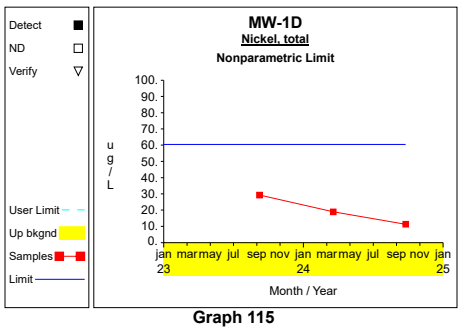

Graph 112



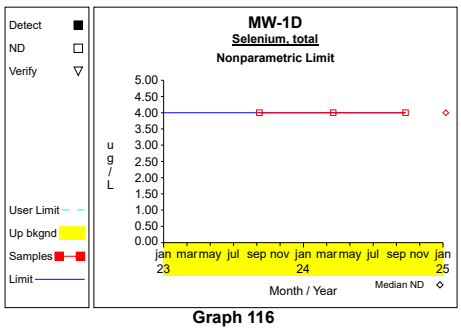

Graph 113



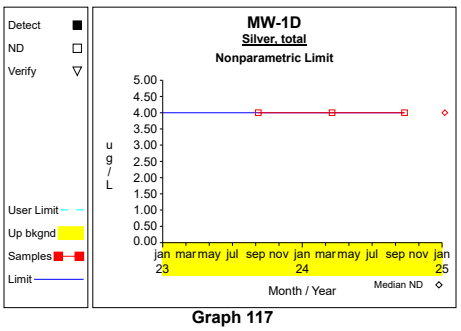

Graph 114



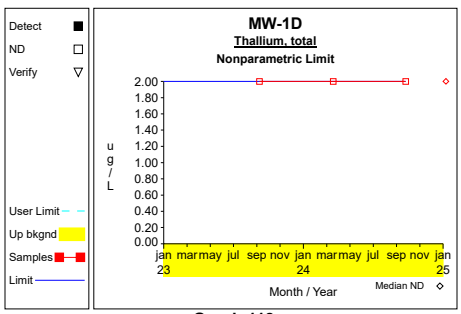

Graph 115



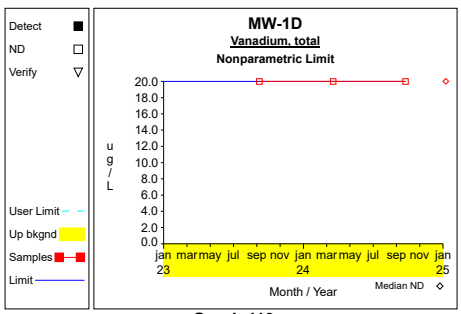

Graph 116



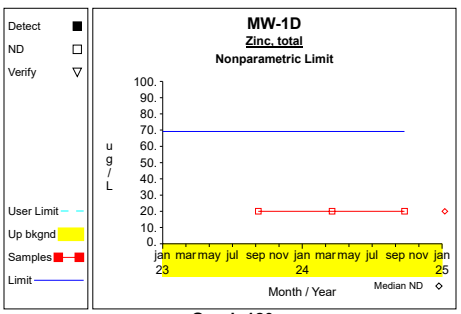

Graph 117




Graph 118




Graph 119




Graph 120

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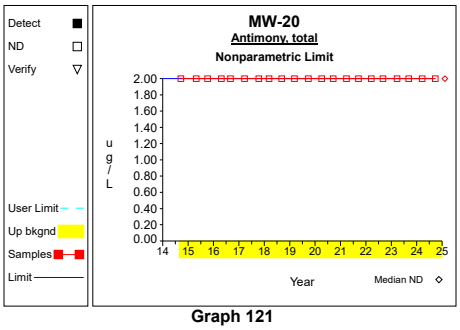
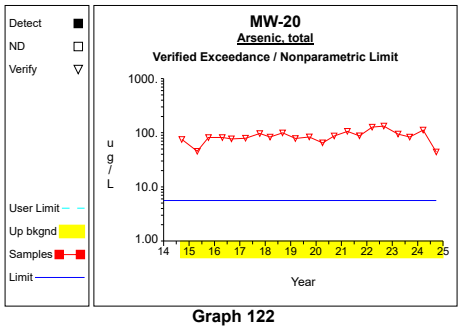
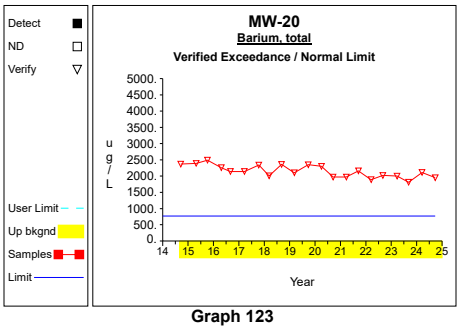
# Up vs. Down Prediction Limits



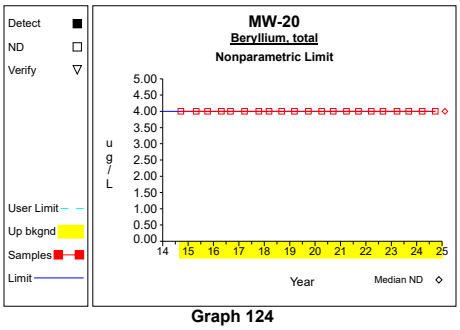

Graph 121



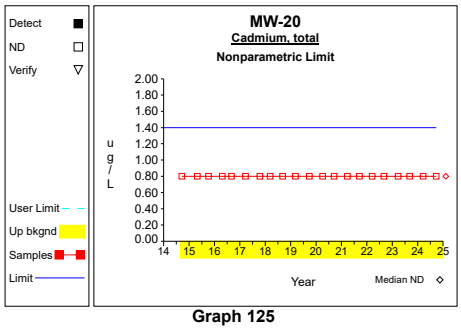

Graph 122



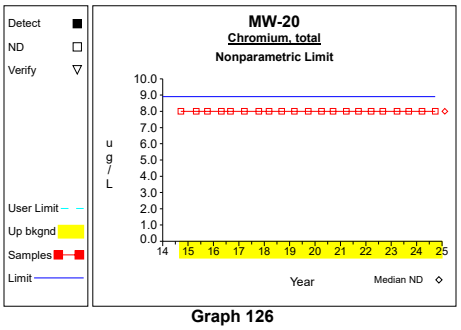

Graph 123



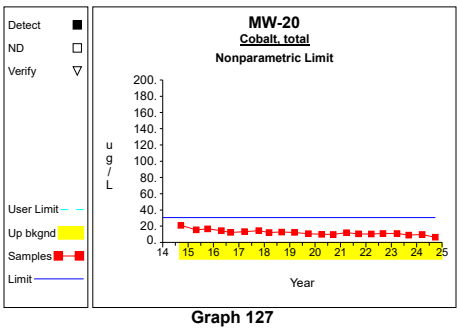

Graph 124



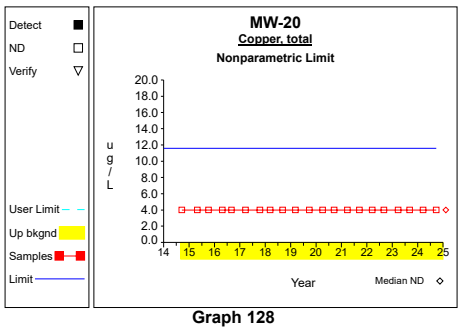

Graph 125



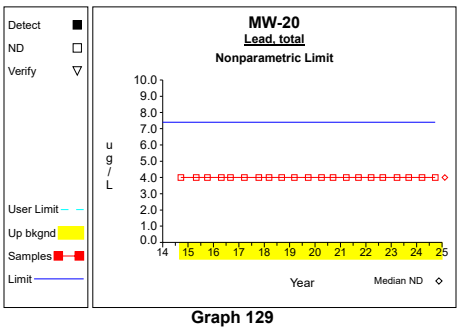

Graph 126



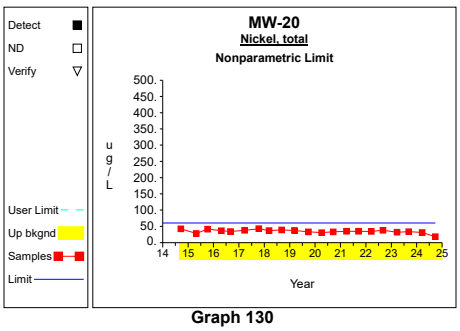

Graph 127



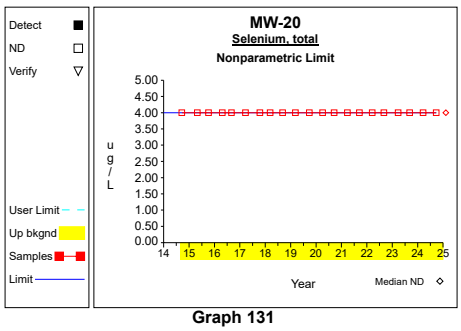

Graph 128



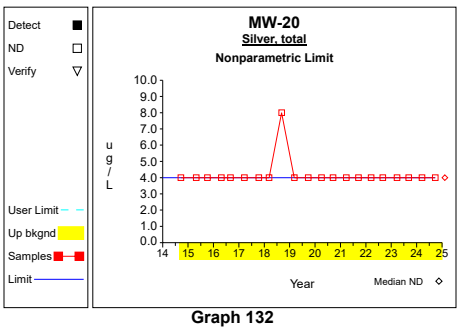

Graph 129



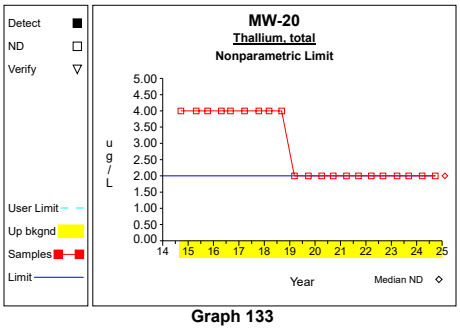

Graph 130



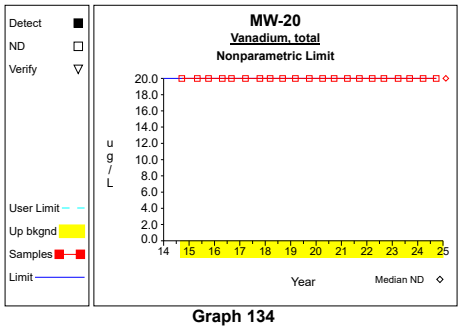

Graph 131



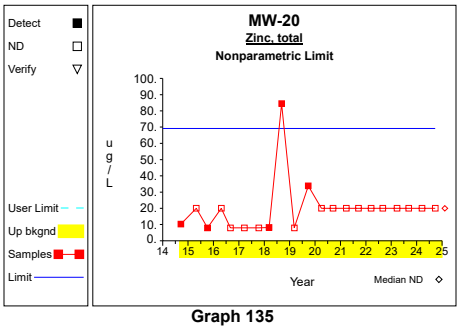

Graph 132




Graph 133




Graph 134




Graph 135

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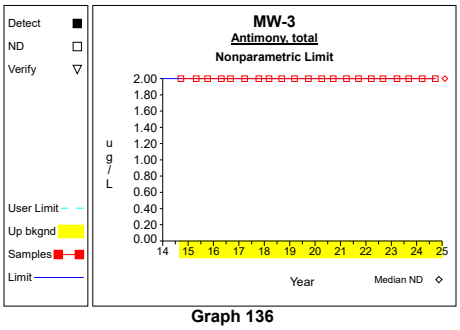
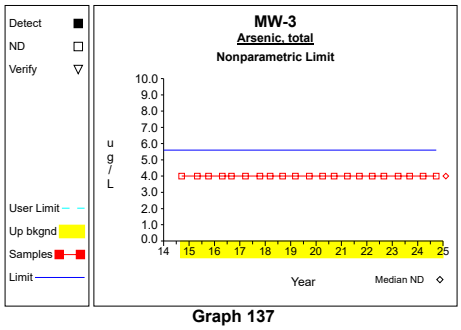
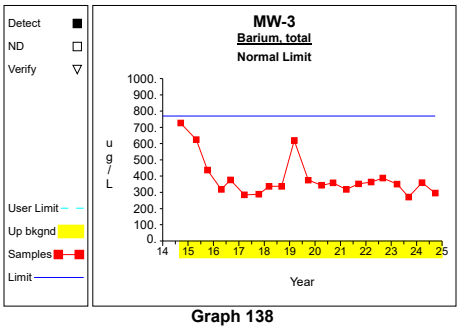
# Up vs. Down Prediction Limits



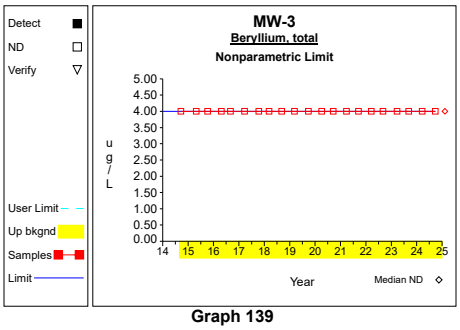

Graph 136



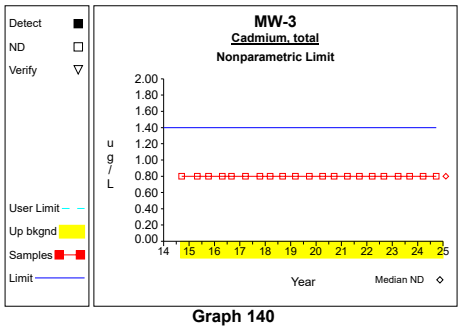

Graph 137



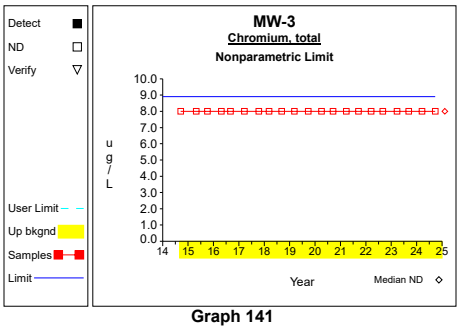

Graph 138



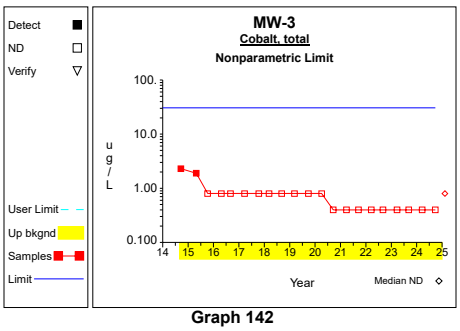

Graph 139



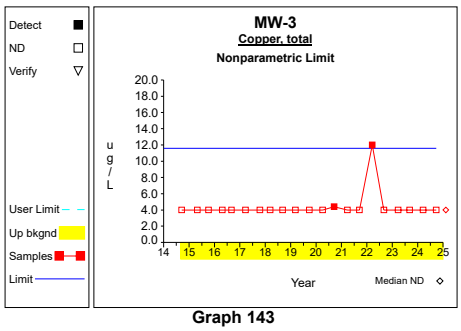

Graph 140



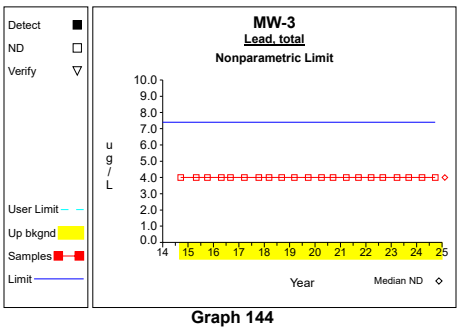

Graph 141



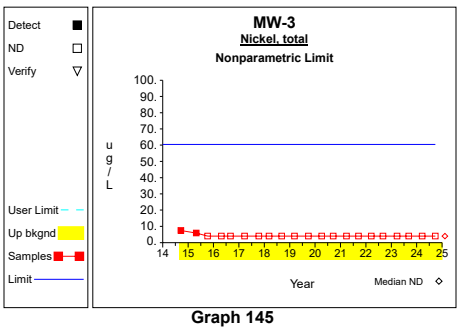

Graph 142



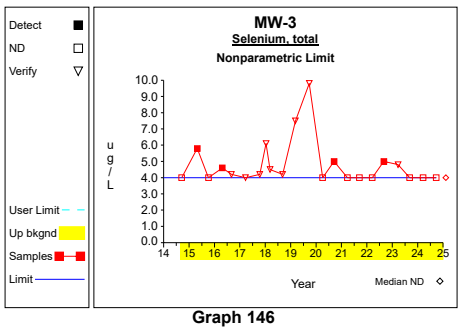

Graph 143



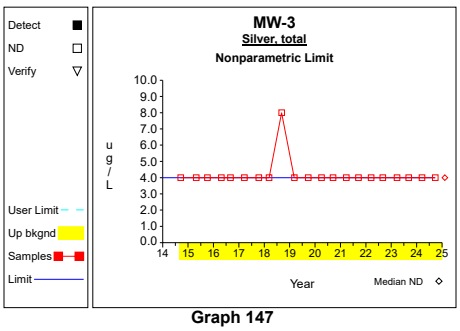

Graph 144



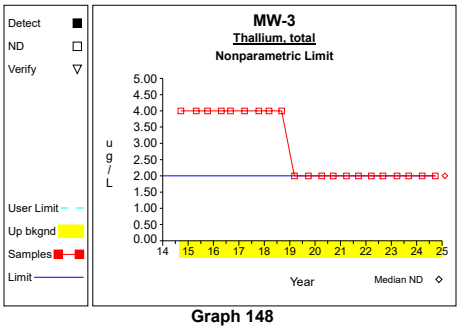

Graph 145



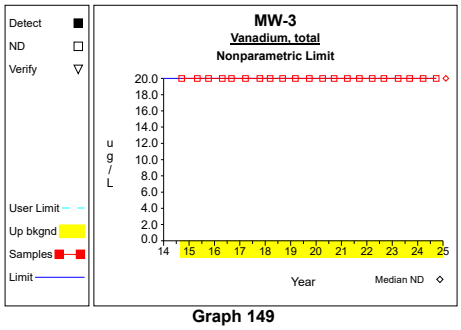

Graph 146



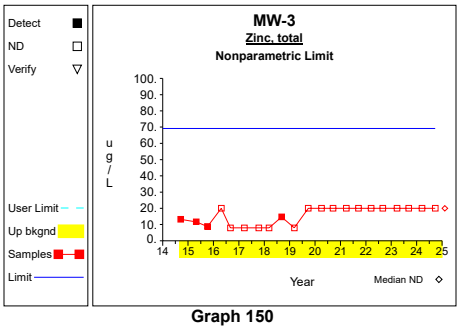

Graph 147




Graph 148




Graph 149




Graph 150

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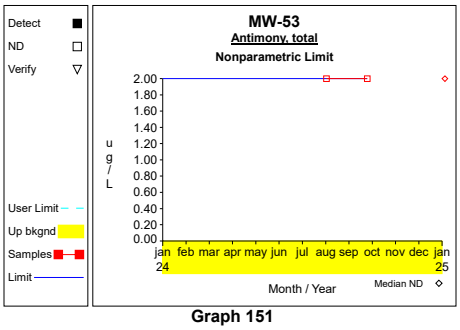
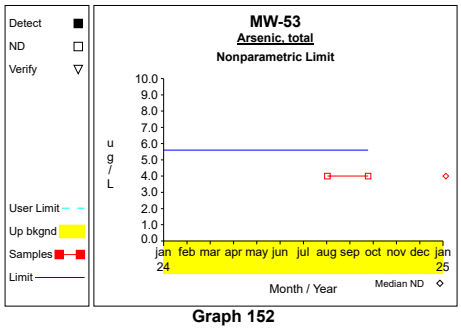
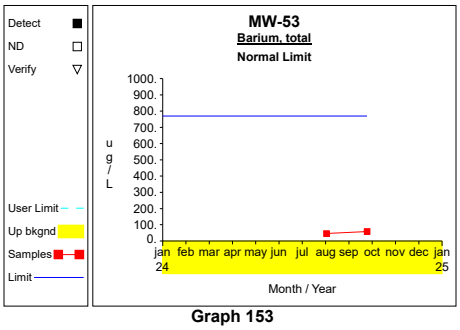
# Up vs. Down Prediction Limits



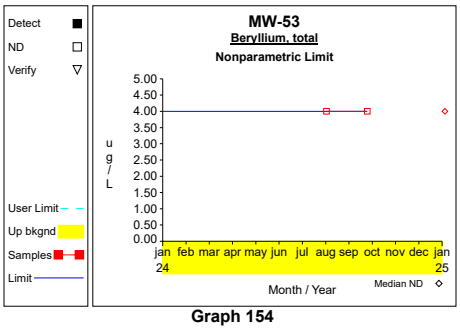

Graph 151



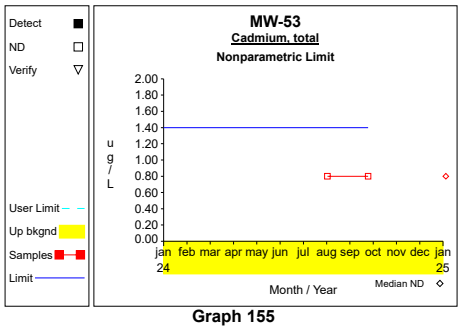

Graph 152



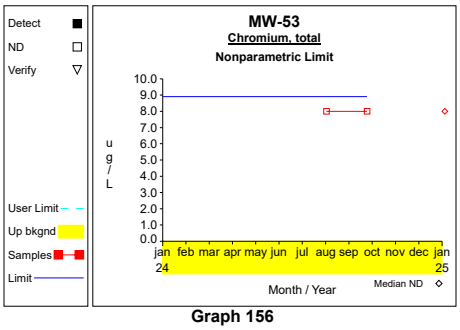

Graph 153



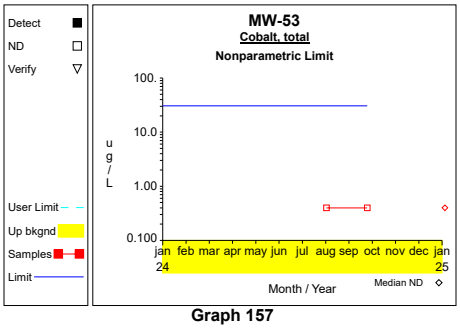

Graph 154



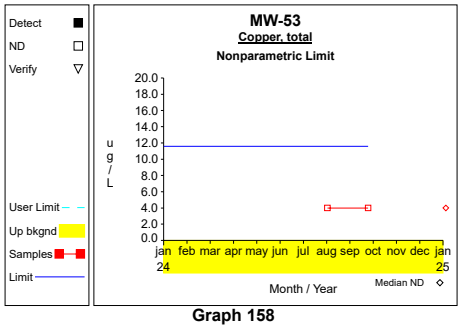

Graph 155



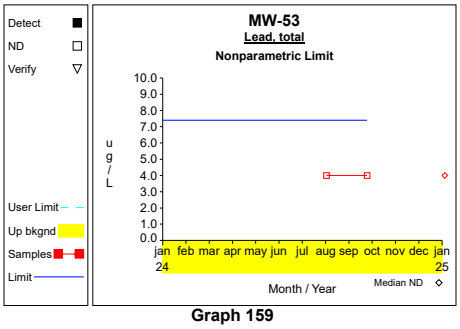

Graph 156



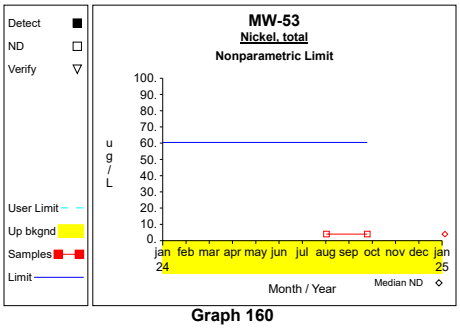

Graph 157



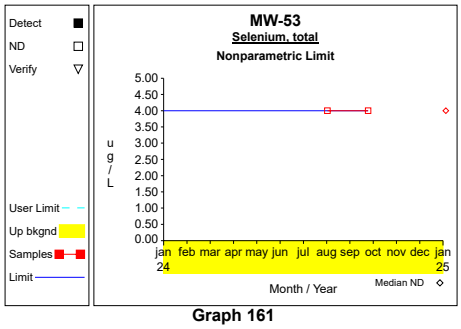

Graph 158



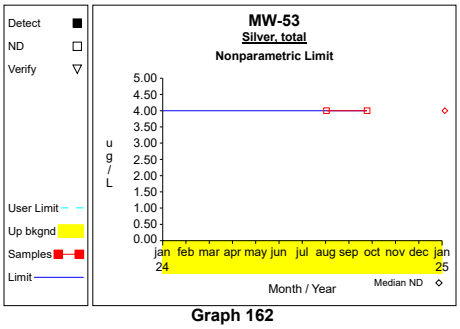

Graph 159



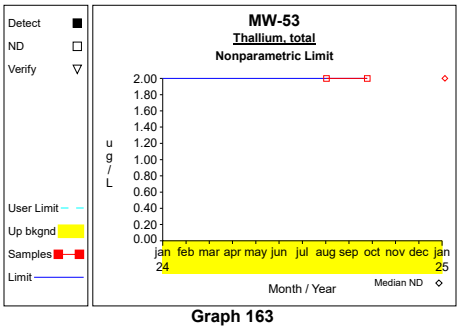

Graph 160



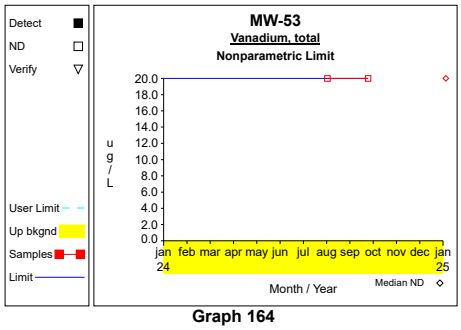

Graph 161



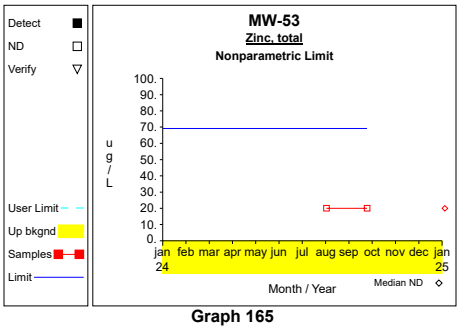

Graph 162




Graph 163



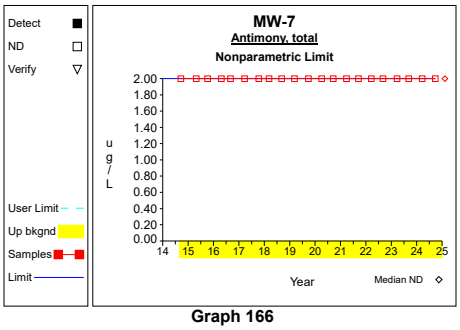

Graph 164



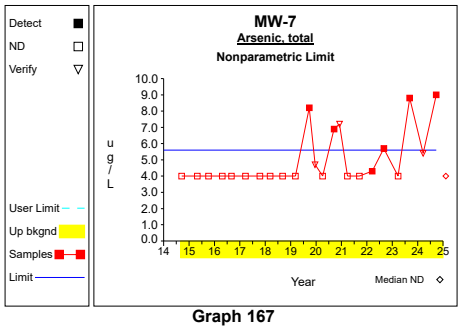

Graph 165

Prepared by: Otter Creek Environmental

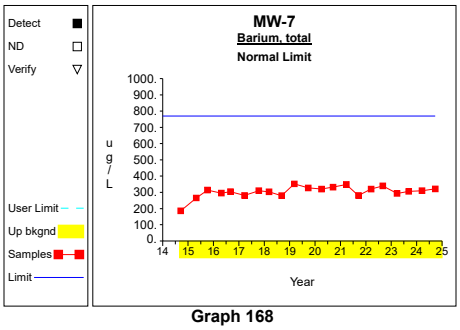
# Up vs. Down Prediction Limits



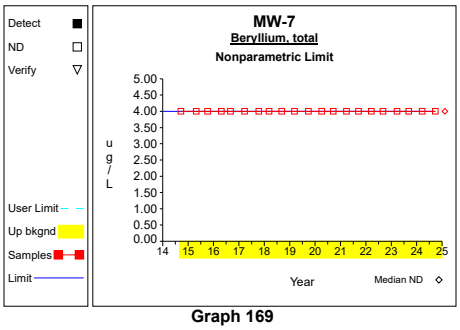

Graph 166



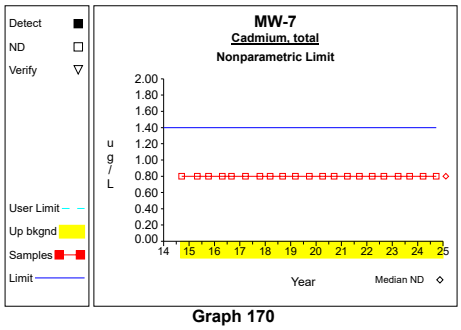

Graph 167



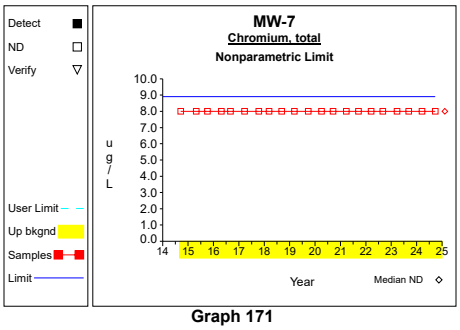

Graph 168



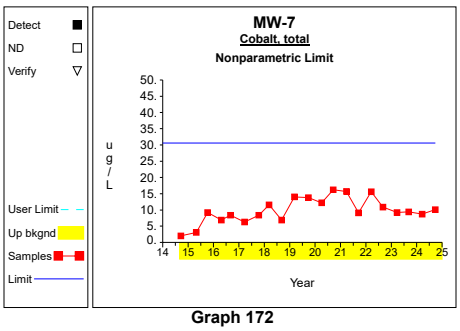

Graph 169



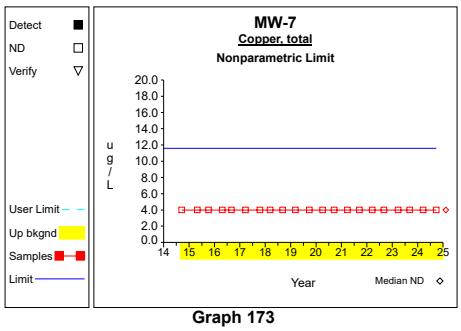

Graph 170



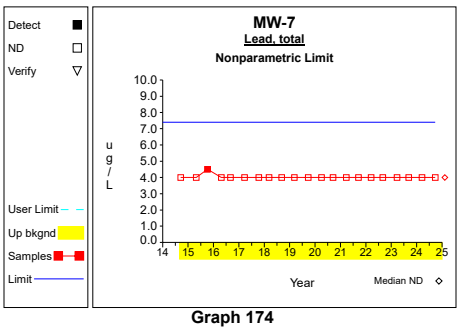

Graph 171



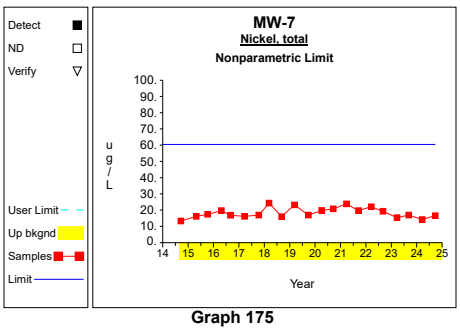

Graph 172



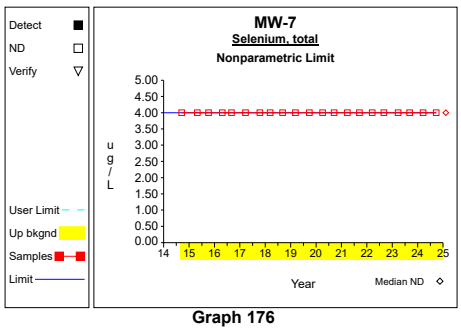

Graph 173



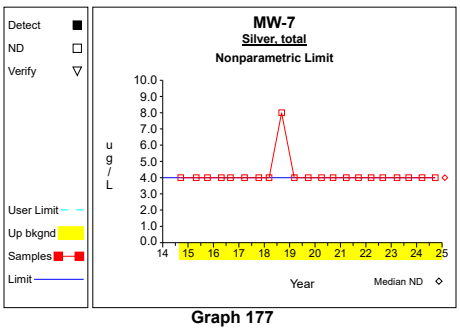

Graph 174



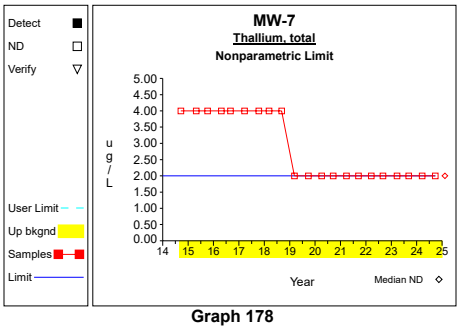

Graph 175



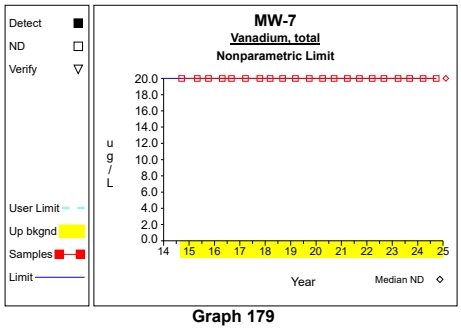

Graph 176



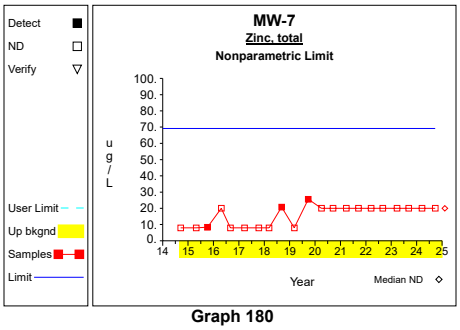

Graph 177




Graph 178




Graph 179

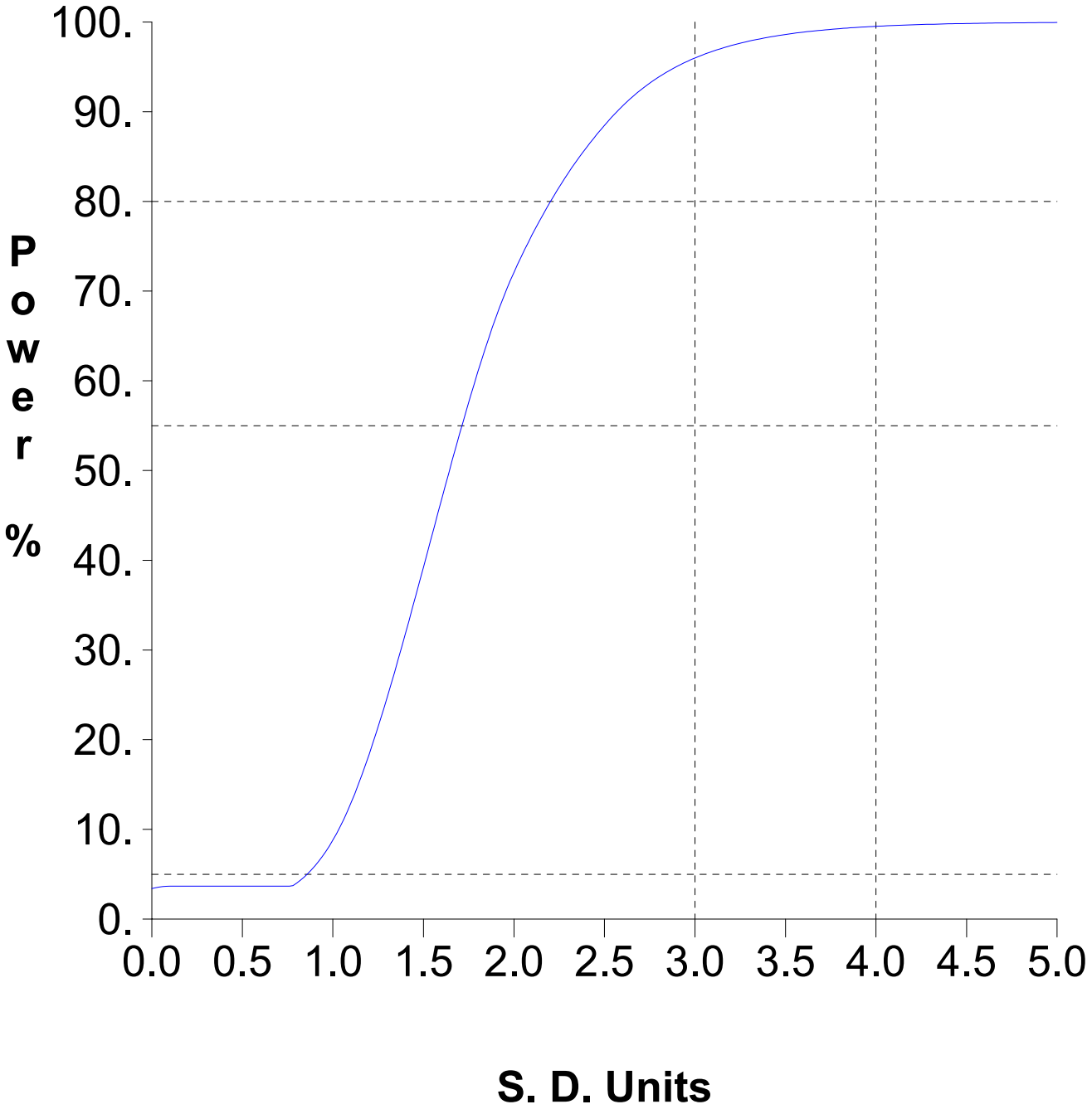



Graph 180

Prepared by: Otter Creek Environmental

# 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 = median(X)<br>= **2.0** | Compute nonparametric prediction limit as median reporting limit in background. |
| 2 | Conf = **0.988** | 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 = max(X)<br>= **5.6** | Compute nonparametric prediction limit as largest background measurement. |
| 2 | Conf = **0.988** | 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**<br>= **10876.8** / **42**<br>= **258.971** | Compute upgradient mean. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**4.60**x**10$^6$** - **1.18**x**10$^8$**/**42**) / (**42**-1) )$^{½}$<br>= **208.313** | Compute upgradient sd. |
| 3 | alpha = min[ (1-.95$^{1/\mathbf{K}}$)$^{½}$, .01 ]<br>= min[ (1-.95$^{1/\mathbf{180}}$)$^{½}$, .01 ]<br>= **0.01** | Adjusted per comparison false positive rate. Pass initial or 1 resample. |
| 4 | PL = $\overline{\mathbf{X}}$ + **tS**(1+1/**N**)$^{½}$<br>= **258.971**<br>+ (**2.421*****208.313**)(1+1/**42**)$^{½}$<br>= **769.204** | 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)<br>= **4.0** | Compute nonparametric prediction limit as median reporting limit in background. |
| 2 | Conf = **0.988** | 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 = max(X)<br>= **1.4** | Compute nonparametric prediction limit as largest background measurement. |
| 2 | Conf = **0.988** | 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 = max(X)<br>= **8.9** | Compute nonparametric prediction limit as largest background measurement. |
| 2 | Conf = **0.988** | 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)<br>= **30.6** | Compute nonparametric prediction limit as largest background measurement. |
| 2 | Conf = **0.988** | 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 = max(X)<br>= **11.6** | Compute nonparametric prediction limit as largest background measurement. |
| 2 | Conf = **0.988** | 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 = max(X)<br>= **7.4** | Compute nonparametric prediction limit as largest background measurement. |
| 2 | Conf = **0.988** | 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)<br>= **60.4** | Compute nonparametric prediction limit as largest background measurement. |
| 2 | Conf = **0.988** | 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)<br>= **4.0** | Compute nonparametric prediction limit as median reporting limit in background. |
| 2 | Conf = **0.988** | 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)<br>= **4.0** | Compute nonparametric prediction limit as median reporting limit in background. |
| 2 | Conf = **0.988** | 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)<br>= **2.0** | Compute nonparametric prediction limit as median reporting limit in background. |
| 2 | Conf = **0.988** | 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)<br>= **20.0** | Compute nonparametric prediction limit as median reporting limit in background. |
| 2 | Conf = **0.988** | 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)<br>= **69.2** | Compute nonparametric prediction limit as largest background measurement. |
| 2 | Conf = **0.988** | Confidence level is based on N, K and resampling strategy (see Gibbons 1994). |

**Attachment C**

Assessment Statistics for Trace Metals

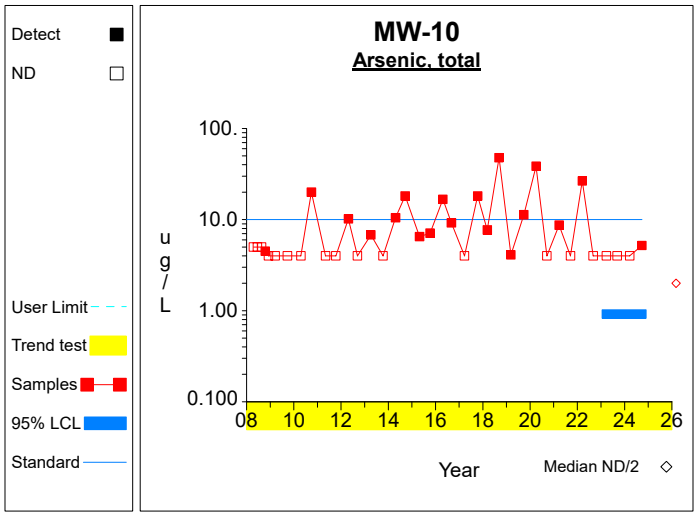
## Table 1

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

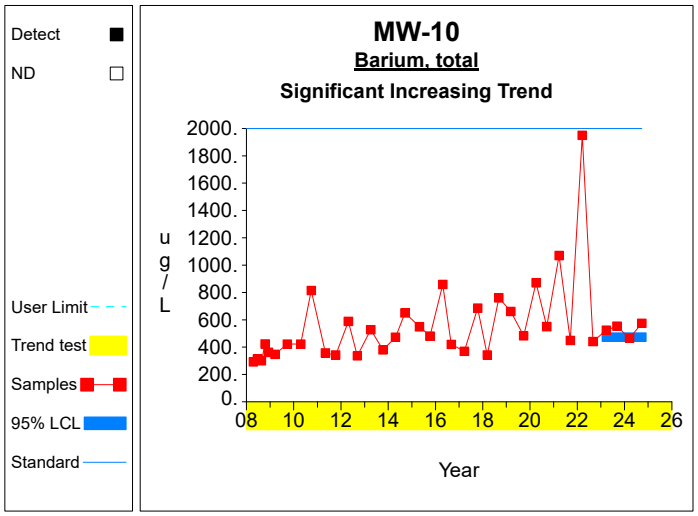
| Constituent | Units | Well | N | Mean | SD | Factor | 95% LCL | 95% UCL | Standard | Trend | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic, total | ug/L | MW-10 | 4 | 2.800 | 1.600 | 1.176 | 0.918 | 4.682 | 10.000 | | |
| Barium, total | ug/L | MW-10 | 4 | 529.250 | 47.654 | 1.176 | 473.195 | 585.305 | 2000.000 | inc | |
| Cadmium, total | ug/L | MW-10 | 4 | 0.400 | 0.000 | 1.176 | 0.400 | 0.400 | 5.000 | | |
| Cobalt, total | ug/L | MW-10 | 4 | 2.275 | 0.562 | 1.176 | 1.614 | 2.936 | 2.100 | | |
| Zinc, total | ug/L | MW-10 | 4 | 14.575 | 9.150 | 1.176 | 3.812 | 25.338 | 2000.000 | | |
| Arsenic, total | ug/L | MW-14 | 4 | 2.000 | 0.000 | 1.176 | 2.000 | 2.000 | 10.000 | | |
| Barium, total | ug/L | MW-14 | 4 | 120.750 | 12.473 | 1.176 | 106.078 | 135.422 | 2000.000 | dec | |
| Cadmium, total | ug/L | MW-14 | 4 | 1.175 | 1.550 | 1.176 | 0.000 | 2.998 | 5.000 | | |
| Cobalt, total | ug/L | MW-14 | 4 | 0.425 | 0.050 | 1.176 | 0.366 | 0.484 | 2.100 | | |
| Zinc, total | ug/L | MW-14 | 4 | 10.000 | 0.000 | 1.176 | 10.000 | 10.000 | 2000.000 | | |
| Arsenic, total | ug/L | MW-16 | 4 | 13.225 | 11.909 | 1.176 | 0.000 | 27.234 | 10.000 | dec | |
| Barium, total | ug/L | MW-16 | 4 | 565.250 | 208.132 | 1.176 | 320.427 | 810.073 | 2000.000 | dec | |
| Cadmium, total | ug/L | MW-16 | 4 | 0.400 | 0.000 | 1.176 | 0.400 | 0.400 | 5.000 | | |
| Cobalt, total | ug/L | MW-16 | 4 | 0.875 | 0.591 | 1.176 | 0.180 | 1.570 | 2.100 | dec | |
| Zinc, total | ug/L | MW-16 | 4 | 5.000 | 0.000 | 1.176 | 5.000 | 5.000 | 2000.000 | | |
| Arsenic, total | ug/L | MW-18 | 4 | 40.400 | 20.003 | 1.176 | 16.871 | 63.929 | 10.000 | | ** |
| Barium, total | ug/L | MW-18 | 4 | 519.000 | 228.871 | 1.176 | 249.781 | 788.219 | 2000.000 | | |
| Cadmium, total | ug/L | MW-18 | 4 | 0.525 | 0.250 | 1.176 | 0.231 | 0.819 | 5.000 | | |
| Cobalt, total | ug/L | MW-18 | 4 | 2.175 | 2.484 | 1.176 | 0.000 | 5.097 | 2.100 | dec | |
| Zinc, total | ug/L | MW-18 | 4 | 10.000 | 0.000 | 1.176 | 10.000 | 10.000 | 2000.000 | | |
| Arsenic, total | ug/L | MW-20 | 4 | 83.525 | 28.797 | 1.176 | 49.651 | 117.399 | 10.000 | | ** |
| Barium, total | ug/L | MW-20 | 4 | 1967.500 | 124.466 | 1.176 | 1821.093 | 2113.907 | 2000.000 | dec | |
| Cadmium, total | ug/L | MW-20 | 4 | 0.400 | 0.000 | 1.176 | 0.400 | 0.400 | 5.000 | | |
| Cobalt, total | ug/L | MW-20 | 4 | 9.075 | 1.970 | 1.176 | 6.757 | 11.393 | 2.100 | dec | ** |
| Zinc, total | ug/L | MW-20 | 4 | 10.000 | 0.000 | 1.176 | 10.000 | 10.000 | 2000.000 | | |
| Arsenic, total | ug/L | MW-7 | 4 | 6.300 | 3.309 | 1.176 | 2.408 | 10.192 | 10.000 | | |
| Barium, total | ug/L | MW-7 | 4 | 307.500 | 11.561 | 1.176 | 293.900 | 321.100 | 2000.000 | inc | |
| Cadmium, total | ug/L | MW-7 | 4 | 0.400 | 0.000 | 1.176 | 0.400 | 0.400 | 5.000 | | |
| Cobalt, total | ug/L | MW-7 | 4 | 9.350 | 0.580 | 1.176 | 8.667 | 10.033 | 2.100 | inc | ** |
| Zinc, total | ug/L | MW-7 | 4 | 5.000 | 0.000 | 1.176 | 5.000 | 5.000 | 2000.000 | | |

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

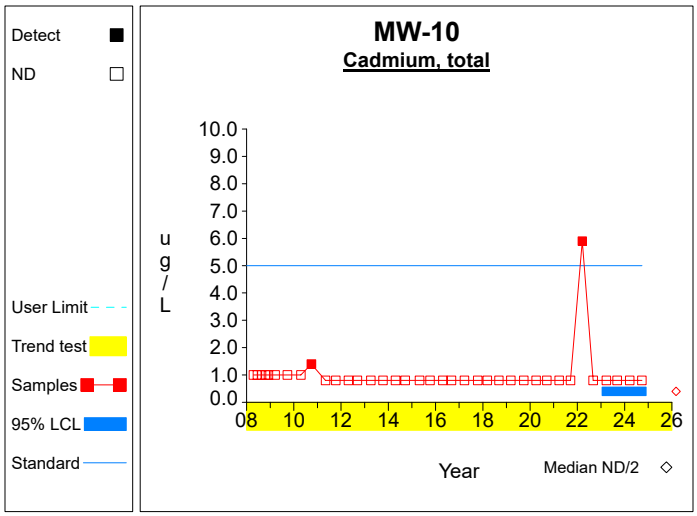
# Confidence Limits (Assessment)



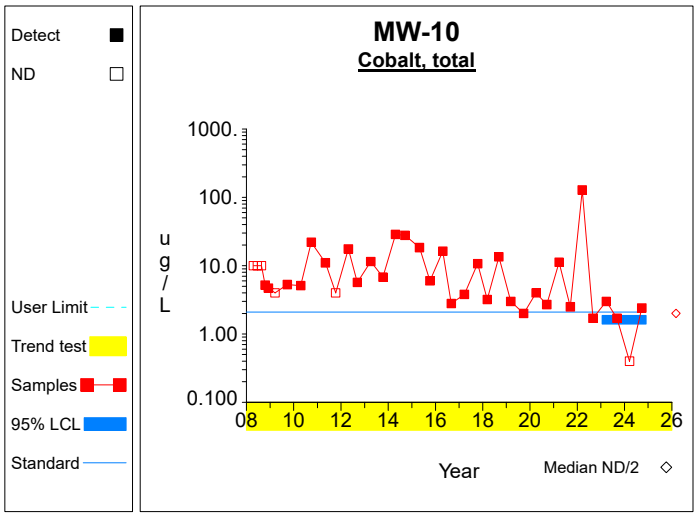

Graph 1



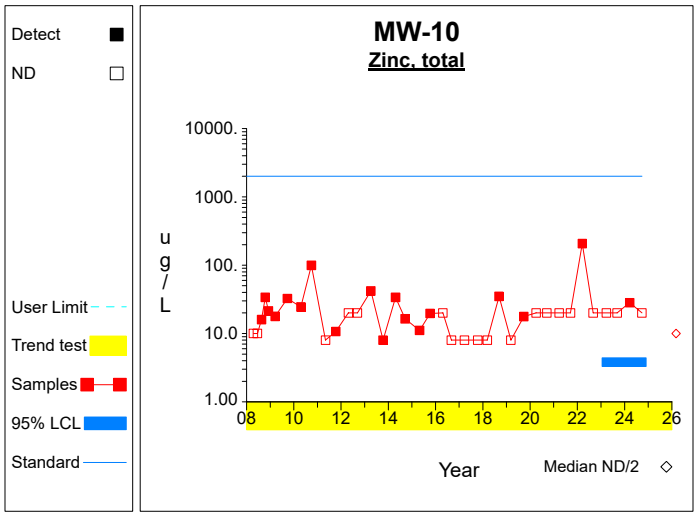

Graph 2




Graph 3

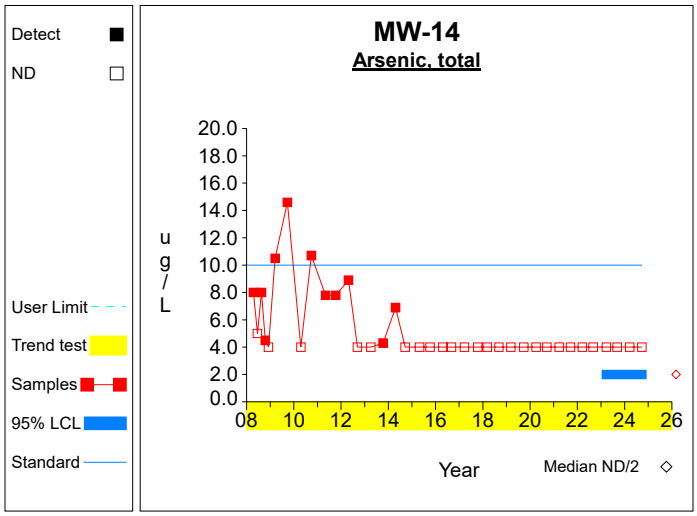



Graph 4

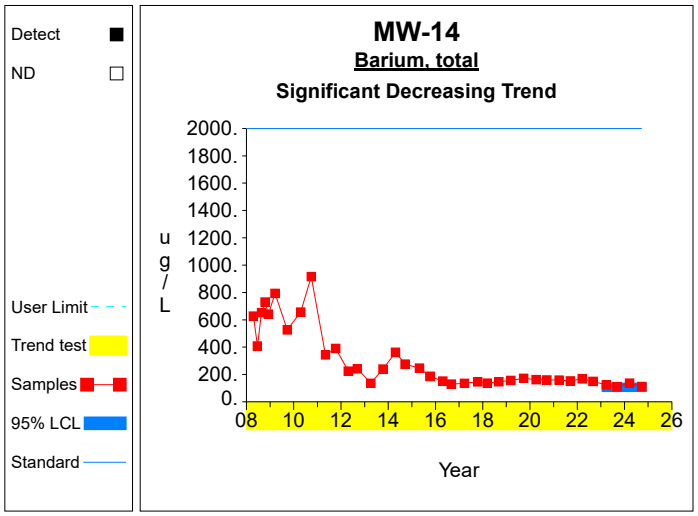



Graph 5

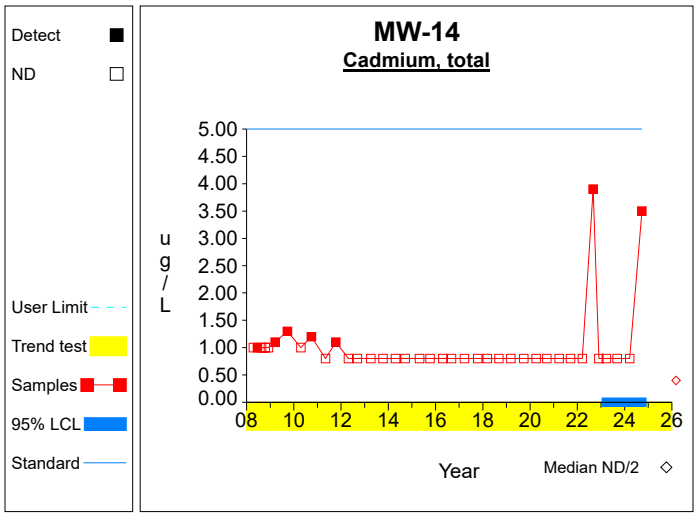
# Confidence Limits (Assessment)



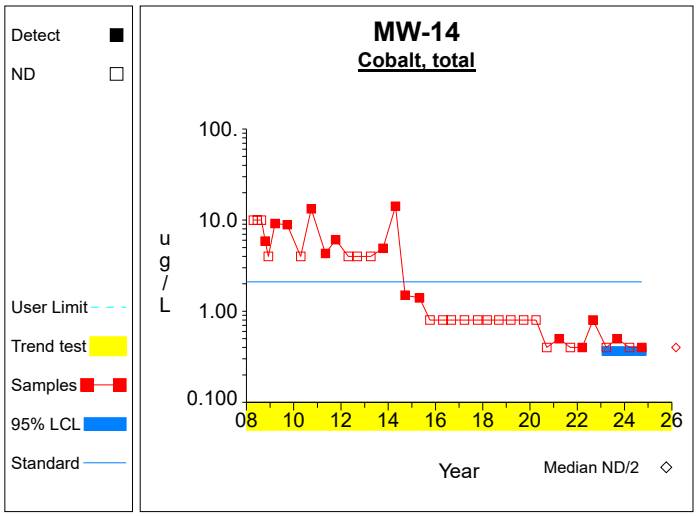

Graph 6



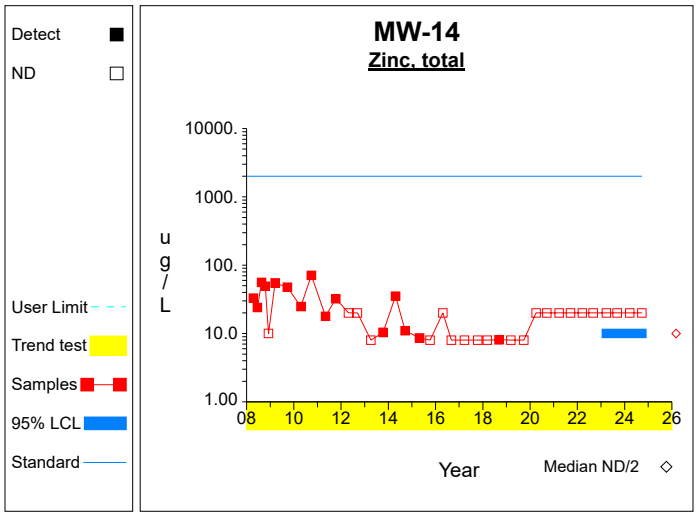

Graph 7




Graph 8

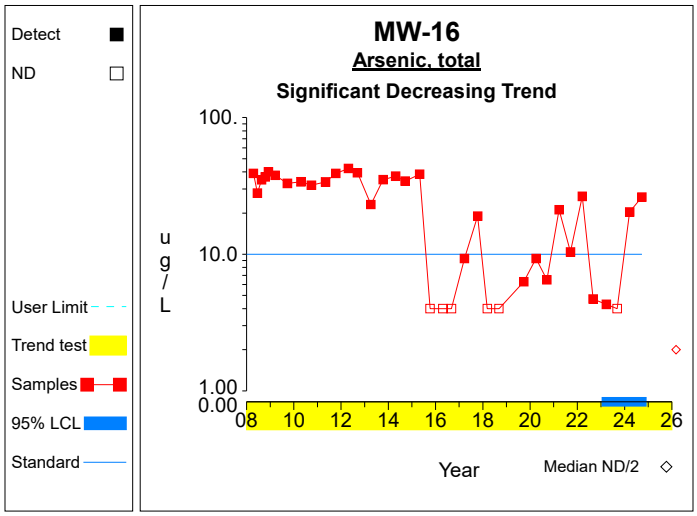



Graph 9

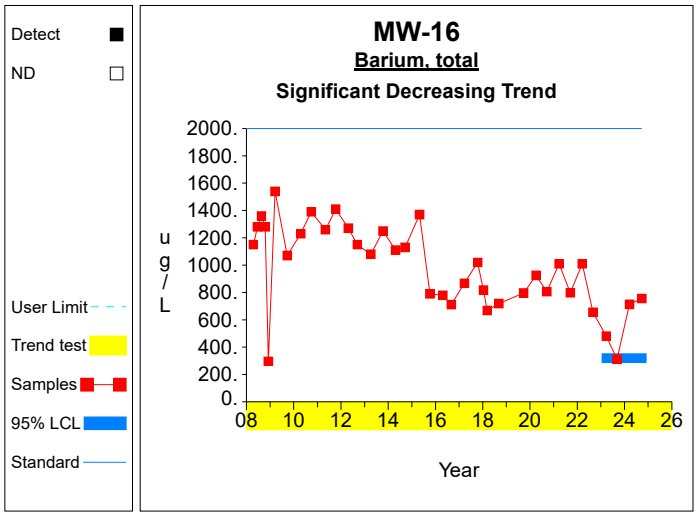



Graph 10

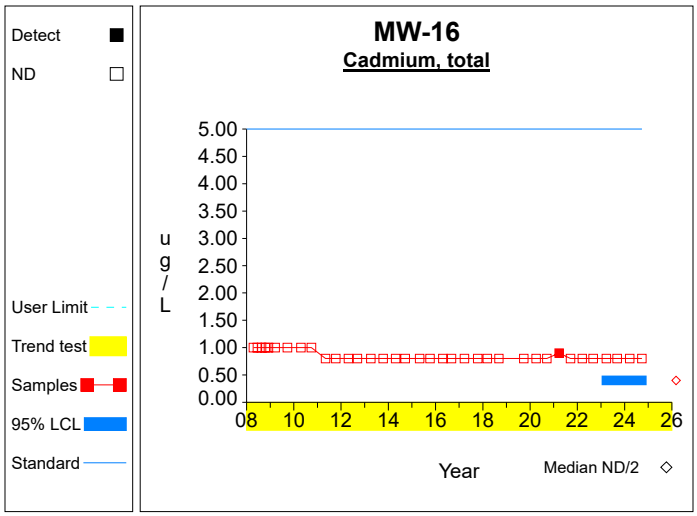
# Confidence Limits (Assessment)



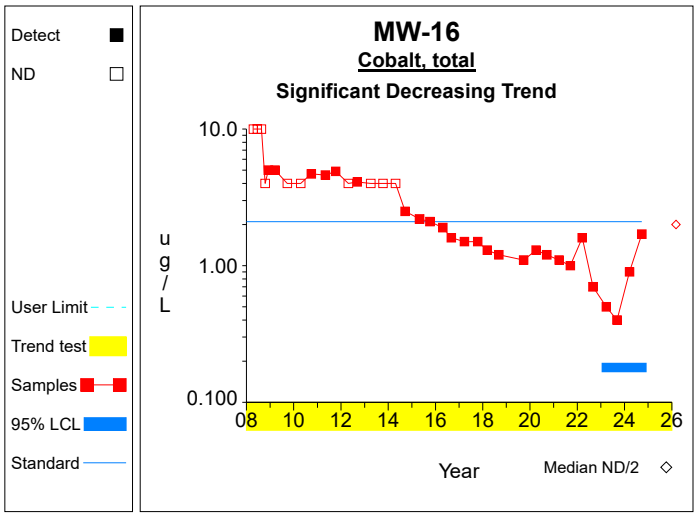

Graph 11



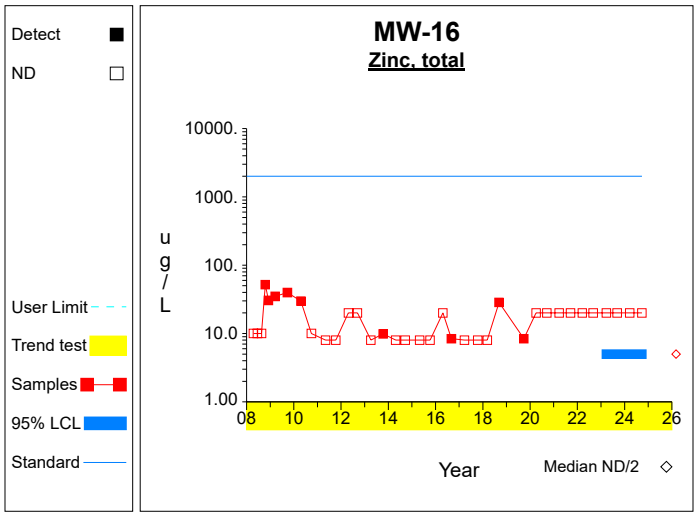

Graph 12




Graph 13

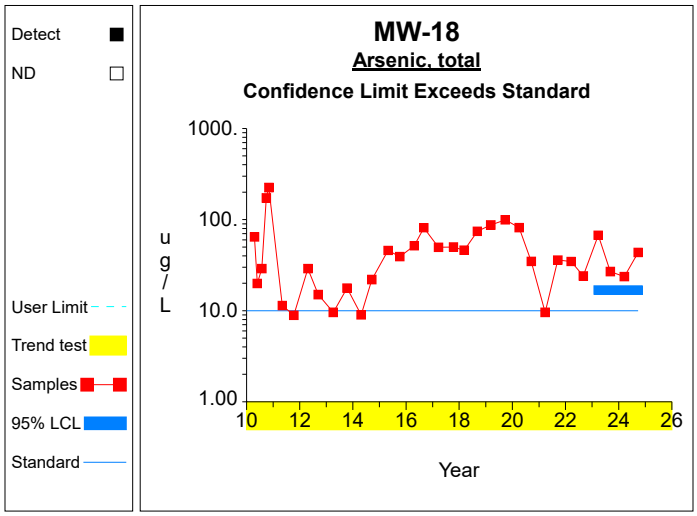



Graph 14

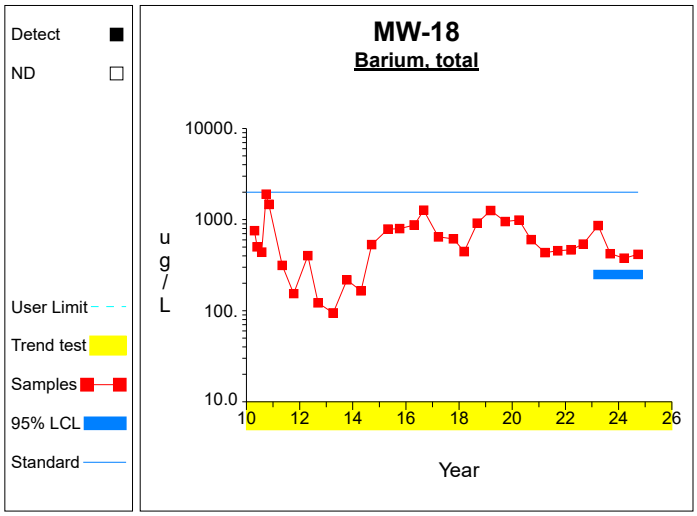



Graph 15

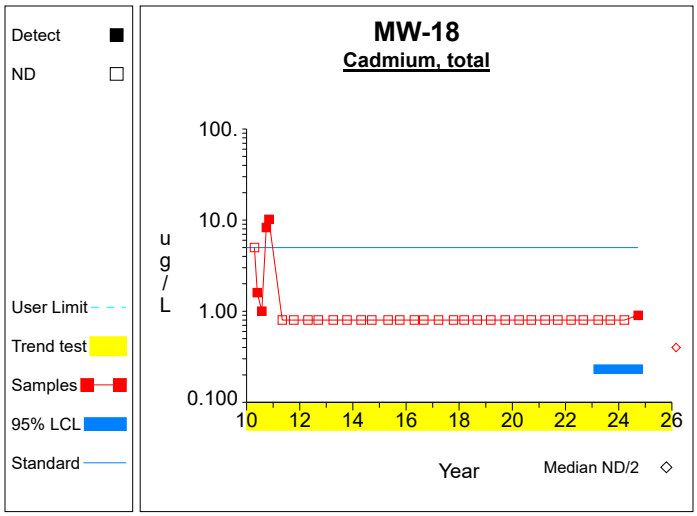
# Confidence Limits (Assessment)



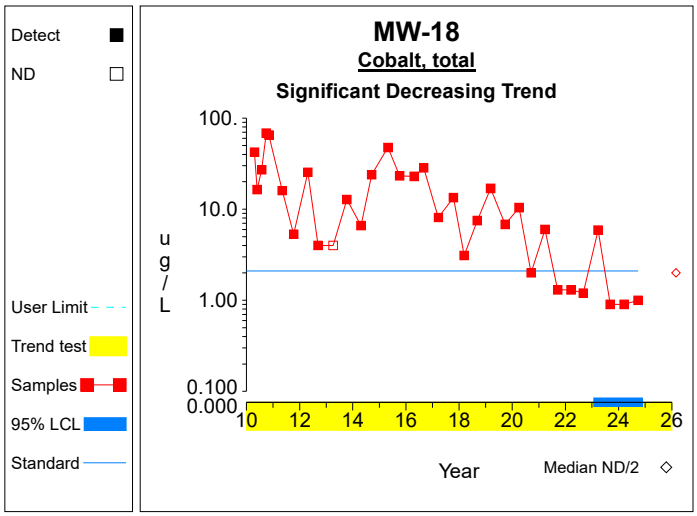

Graph 16



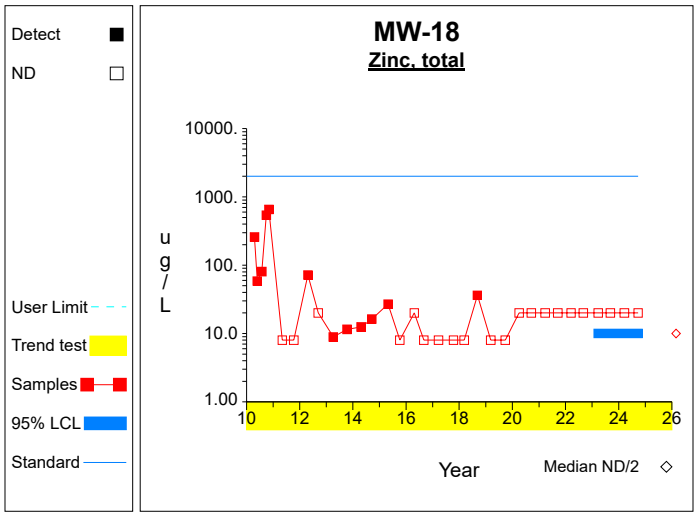

Graph 17




Graph 18

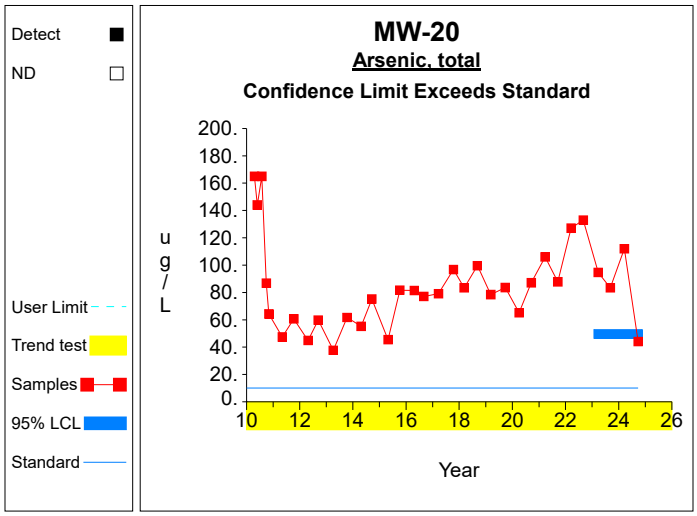



Graph 19

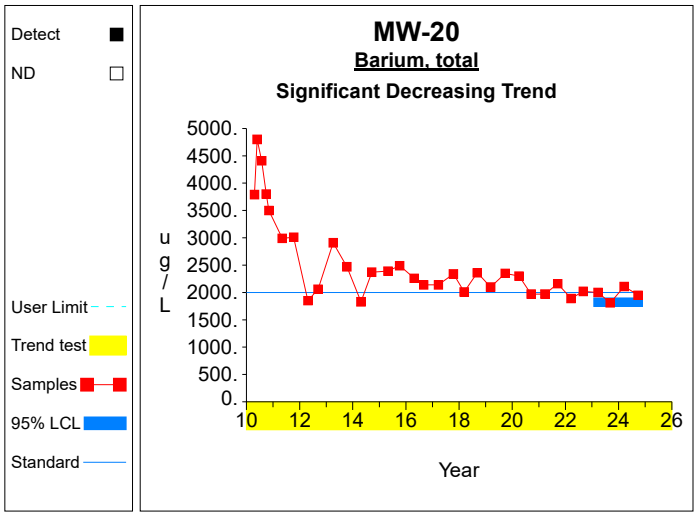



Graph 20

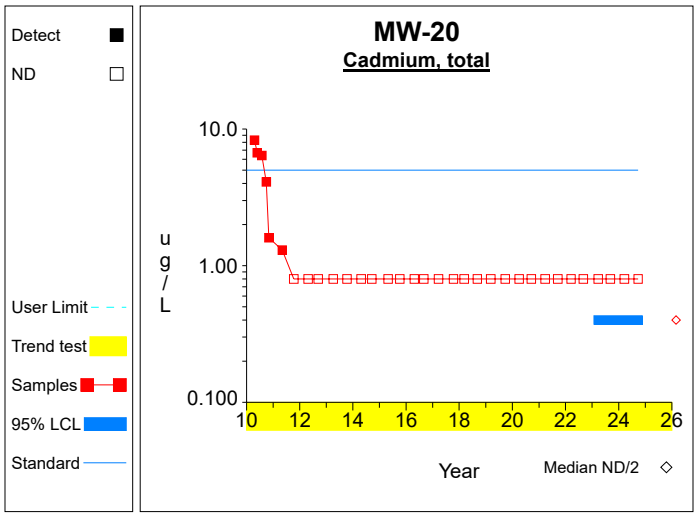
# Confidence Limits (Assessment)



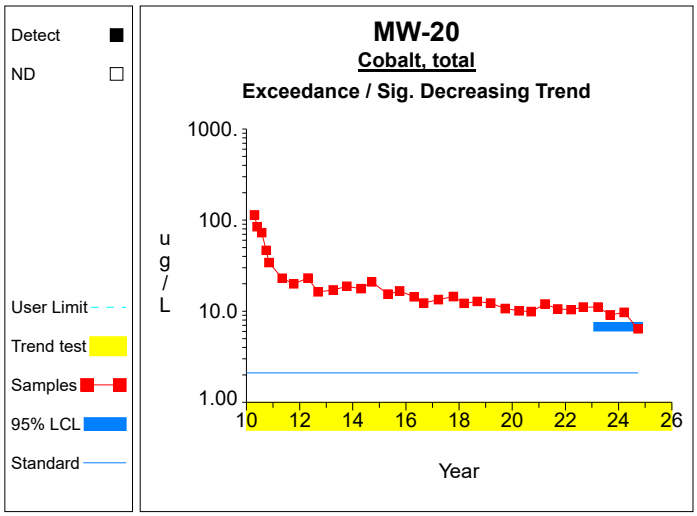

Graph 21



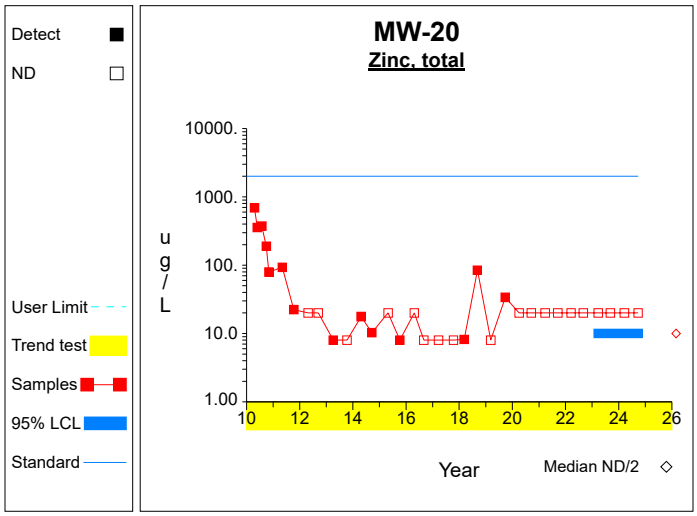

Graph 22




Graph 23

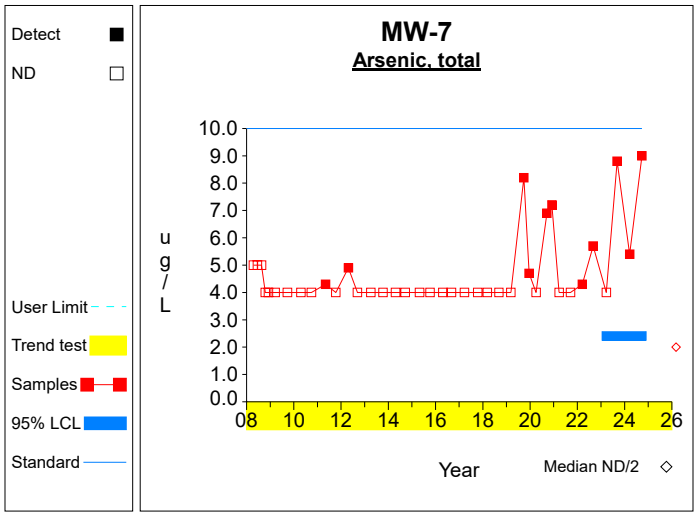



Graph 24

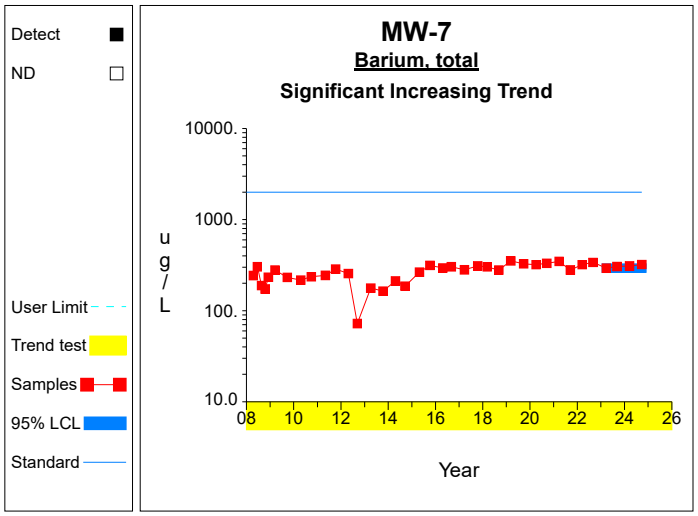



Graph 25

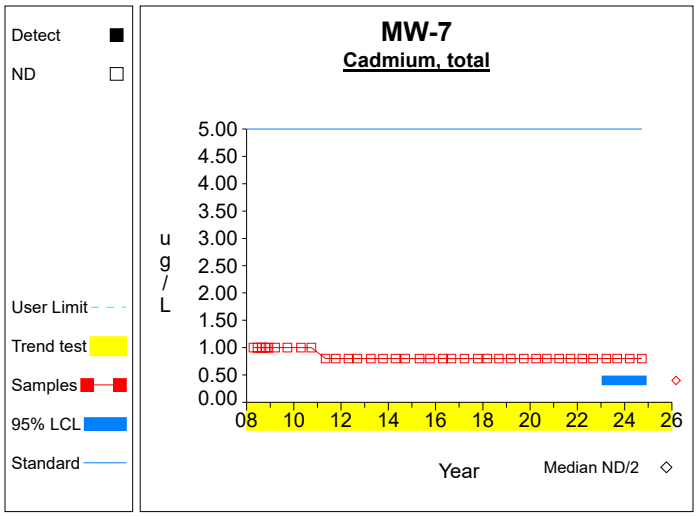
# Confidence Limits (Assessment)



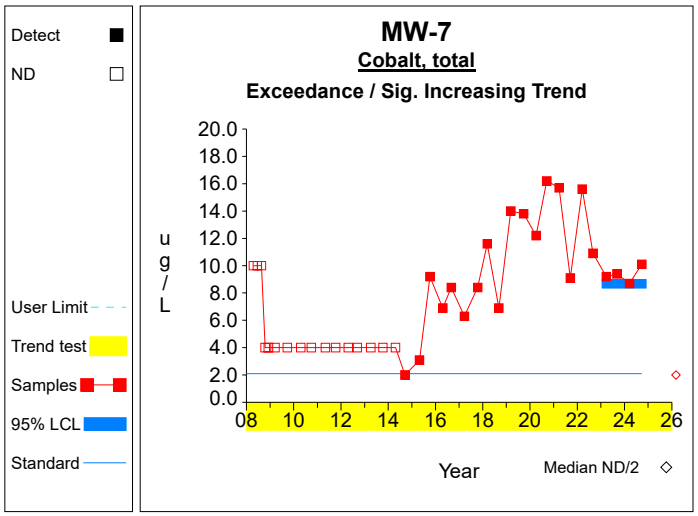

Graph 26



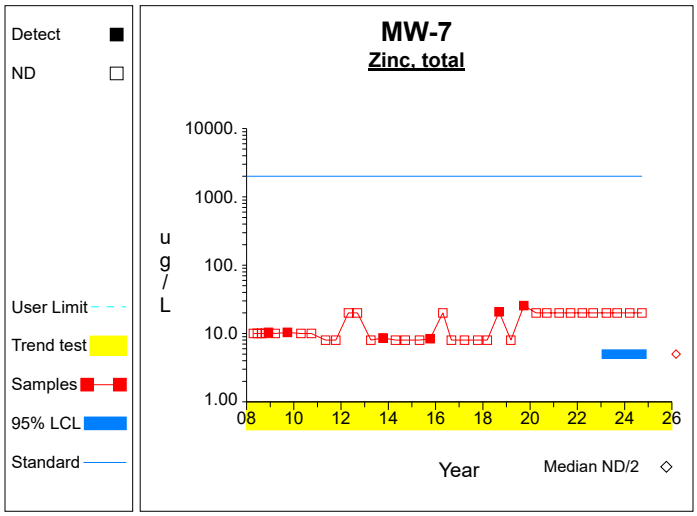

Graph 27




Graph 28




Graph 29




Graph 30

## Worksheet 6 - Assessment Monitoring
## Arsenic, total (ug/L) at MW-10

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **11.2** / **4**<br>= **2.8** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**39.04** - **125.44**/**4**) / (**4**-1) )$^{½}$<br>= **1.6** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **2.8** - **2.353** * **1.6**/**4**$^{½}$<br>= **0.918** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **2.8** + **2.353** * **1.6**/**4**$^{½}$<br>= **4.682** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **5148.0** | Variance estimate for slope. |
| 8 | M(S) = (**N**' ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **5148.0**$^{½}$) / 2<br>= [ **240.587**, **425.413** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.7** ] | 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-10

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2117.0** / **4**<br>= **529.25** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.13**x**10$^6$** - **4.48**x**10$^6$**/**4**) / (**4**-1) )$^{½}$<br>= **47.654** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **529.25** - **2.353** * **47.654**/**4**$^{½}$<br>= **473.195** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **529.25** + **2.353** * **47.654**/**4**$^{½}$<br>= **585.305** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **15.257** | Sen's estimator of trend. |
| 7 | var(S) = **5844.0** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **5844.0**$^{½}$) / 2<br>= [ **234.537**, **431.463** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **5.751**, **35.342** ] | Two-sided confidence interval for slope. |
| 10 | LCL(S) > 0 | **Significant increasing trend.** |

## Worksheet 6 - Assessment Monitoring
## Cadmium, total (ug/L) at MW-10

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **1.6** / **4**<br>= **0.4** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**0.64** - **2.56**/**4**) / (**4**-1) )$^{½}$<br>= **4.21**x**10**$^{-9}$ | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.4** - **2.353** * **4.21**x**10**$^{-9}$/**4**$^{½}$<br>= **0.4** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.4** + **2.353** * **4.21**x**10**$^{-9}$/**4**$^{½}$<br>= **0.4** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **887.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **887.667**$^{½}$) / 2<br>= [ **294.626**, **371.374** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | 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-10

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **9.1** / **4**<br>= **2.275** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**21.65** - **82.81**/**4**) / (**4**-1) )$^{½}$<br>= **0.562** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **2.275** - **2.353** * **0.562**/**4**$^{½}$<br>= **1.614** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **2.275** + **2.353** * **0.562**/**4**$^{½}$<br>= **2.936** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **-0.07** | Sen's estimator of trend. |
| 7 | var(S) = **5799.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **5799.667**$^{½}$) / 2<br>= [ **234.912**, **431.088** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-0.402**, **0.202** ] | 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-10

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **58.3** / **4**<br>= **14.575** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1100.89** - **3398.89**/**4**) / (**4**-1) )$^{½}$<br>= **9.15** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **14.575** - **2.353** * **9.15**/**4**$^{½}$<br>= **3.812** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **14.575** + **2.353** * **9.15**/**4**$^{½}$<br>= **25.338** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **5028.0** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **5028.0**$^{½}$) / 2<br>= [ **241.67**, **424.33** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-0.725**, **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-14

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **8.0** / **4**<br>= **2.0** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**16.0** - **64.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **2.0** - **2.353** * **0.0**/**4**$^{½}$<br>= **2.0** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **2.0** + **2.353** * **0.0**/**4**$^{½}$<br>= **2.0** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **3785.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **3785.667**$^{½}$) / 2<br>= [ **253.752**, **412.248** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-0.36**, **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-14

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **483.0** / **4**<br>= **120.75** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**58789.0** - **233289.0**/**4**) / (**4**-1) )$^{½}$<br>= **12.473** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **120.75** - **2.353** * **12.473**/**4**$^{½}$<br>= **106.078** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **120.75** + **2.353** * **12.473**/**4**$^{½}$<br>= **135.422** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **-23.621** | Sen's estimator of trend. |
| 7 | var(S) = **5845.0** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **5845.0**$^{½}$) / 2<br>= [ **234.529**, **431.471** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-40.627**, **-11.972** ] | Two-sided confidence interval for slope. |
| 10 | UCL(S) < 0 | **Significant decreasing trend.** |

## Worksheet 6 - Assessment Monitoring
## Cadmium, total (ug/L) at MW-14

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **4.7** / **4**<br>= **1.175** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**12.73** - **22.09**/**4**) / (**4**-1) )$^{½}$<br>= **1.55** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **1.175** - **2.353** * **1.55**/**4**$^{½}$<br>= **0.0** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **1.175** + **2.353** * **1.55**/**4**$^{½}$<br>= **2.998** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **38** * (**38**-1) / 2<br>= **703** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **2864.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**703** ± **2.576** * **2864.333**$^{½}$) / 2<br>= [ **282.567**, **420.433** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | 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-14

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **1.7** / **4**<br>= **0.425** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**0.73** - **2.89**/**4**) / (**4**-1) )$^{½}$<br>= **0.05** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.425** - **2.353** * **0.05**/**4**$^{½}$<br>= **0.366** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.425** + **2.353** * **0.05**/**4**$^{½}$<br>= **0.484** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **4219.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **4219.667**$^{½}$) / 2<br>= [ **249.333**, **416.667** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-0.086**, **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-14

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **40.0** / **4**<br>= **10.0** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**400.0** - **1600.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **10.0** - **2.353** * **0.0**/**4**$^{½}$<br>= **10.0** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **10.0** + **2.353** * **0.0**/**4**$^{½}$<br>= **10.0** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **-0.174** | Sen's estimator of trend. |
| 7 | var(S) = **4588.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **4588.333**$^{½}$) / 2<br>= [ **245.754**, **420.246** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-1.857**, **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-16

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **52.9** / **4**<br>= **13.225** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1125.09** - **2798.41**/**4**) / (**4**-1) )$^{½}$<br>= **11.909** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **13.225** - **2.353** * **11.909**/**4**$^{½}$<br>= **0.0** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **13.225** + **2.353** * **11.909**/**4**$^{½}$<br>= **27.234** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **36** * (**36**-1) / 2<br>= **630** | Number of sample pairs during trend detection period. |
| 6 | S = **-1.848** | Sen's estimator of trend. |
| 7 | var(S) = **5359.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**630** ± **2.576** * **5359.667**$^{½}$) / 2<br>= [ **220.706**, **409.294** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-2.852**, **-0.544** ] | Two-sided confidence interval for slope. |
| 10 | UCL(S) < 0 | **Significant decreasing trend.** |

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

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2261.0** / **4**<br>= **565.25** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.41**x**10$^6$** - **5.11**x**10$^6$**/**4**) / (**4**-1) )$^{½}$<br>= **208.132** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **565.25** - **2.353** * **208.132**/**4**$^{½}$<br>= **320.427** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **565.25** + **2.353** * **208.132**/**4**$^{½}$<br>= **810.073** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **-42.4** | Sen's estimator of trend. |
| 7 | var(S) = **5843.0** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **5843.0**$^{½}$) / 2<br>= [ **234.546**, **431.454** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-60.155**, **-24.419** ] | Two-sided confidence interval for slope. |
| 10 | UCL(S) < 0 | **Significant decreasing trend.** |

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

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **1.6** / **4**<br>= **0.4** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**0.64** - **2.56**/**4**) / (**4**-1) )$^{½}$<br>= **4.21**x**10**$^{-9}$ | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.4** - **2.353** * **4.21**x**10**$^{-9}$/**4**$^{½}$<br>= **0.4** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.4** + **2.353** * **4.21**x**10**$^{-9}$/**4**$^{½}$<br>= **0.4** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **36** * (**36**-1) / 2<br>= **630** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **431.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**630** ± **2.576** * **431.667**$^{½}$) / 2<br>= [ **288.24**, **341.76** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | 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-16

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **3.5** / **4**<br>= **0.875** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**4.11** - **12.25**/**4**) / (**4**-1) )$^{½}$<br>= **0.591** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.875** - **2.353** * **0.591**/**4**$^{½}$<br>= **0.18** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.875** + **2.353** * **0.591**/**4**$^{½}$<br>= **1.57** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **36** * (**36**-1) / 2<br>= **630** | Number of sample pairs during trend detection period. |
| 6 | S = **-0.118** | Sen's estimator of trend. |
| 7 | var(S) = **5259.0** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**630** ± **2.576** * **5259.0**$^{½}$) / 2<br>= [ **221.596**, **408.404** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-0.204**, **-0.07** ] | Two-sided confidence interval for slope. |
| 10 | UCL(S) < 0 | **Significant decreasing trend.** |

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

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **20.0** / **4**<br>= **5.0** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**100.0** - **400.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **5.0** - **2.353** * **0.0**/**4**$^{½}$<br>= **5.0** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **5.0** + **2.353** * **0.0**/**4**$^{½}$<br>= **5.0** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **36** * (**36**-1) / 2<br>= **630** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **3088.0** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**630** ± **2.576** * **3088.0**$^{½}$) / 2<br>= [ **243.426**, **386.574** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **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-18

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **161.6** / **4**<br>= **40.4** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**7729.02** - **26114.56**/**4**) / (**4**-1) )$^{½}$<br>= **20.003** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **40.4** - **2.353** * **20.003**/**4**$^{½}$<br>= **16.871** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **40.4** + **2.353** * **20.003**/**4**$^{½}$<br>= **63.929** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **0.732** | Sen's estimator of trend. |
| 7 | var(S) = **4163.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **4163.333**$^{½}$) / 2<br>= [ **180.893**, **347.107** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-2.942**, **3.653** ] | 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-18

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2076.0** / **4**<br>= **519.0** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.23**x**10$^6$** - **4.31**x**10$^6$**/**4**) / (**4**-1) )$^{½}$<br>= **228.871** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **519.0** - **2.353** * **228.871**/**4**$^{½}$<br>= **249.781** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **519.0** + **2.353** * **228.871**/**4**$^{½}$<br>= **788.219** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **1.642** | Sen's estimator of trend. |
| 7 | var(S) = **4165.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **4165.333**$^{½}$) / 2<br>= [ **180.873**, **347.127** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-46.731**, **38.2** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

## Worksheet 6 - Assessment Monitoring
## Cadmium, total (ug/L) at MW-18

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.1** / **4**<br>= **0.525** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.29** - **4.41**/**4**) / (**4**-1) )$^{½}$<br>= **0.25** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.525** - **2.353** * **0.25**/**4**$^{½}$<br>= **0.231** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.525** + **2.353** * **0.25**/**4**$^{½}$<br>= **0.819** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **1603.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **1603.333**$^{½}$) / 2<br>= [ **212.426**, **315.574** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | 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-18

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **8.7** / **4**<br>= **2.175** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**37.43** - **75.69**/**4**) / (**4**-1) )$^{½}$<br>= **2.484** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **2.175** - **2.353** * **2.484**/**4**$^{½}$<br>= **0.0** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **2.175** + **2.353** * **2.484**/**4**$^{½}$<br>= **5.097** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **-1.753** | Sen's estimator of trend. |
| 7 | var(S) = **4162.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **4162.333**$^{½}$) / 2<br>= [ **180.903**, **347.097** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-3.321**, **-0.606** ] | Two-sided confidence interval for slope. |
| 10 | UCL(S) < 0 | **Significant decreasing trend.** |

## Worksheet 6 - Assessment Monitoring
## Zinc, total (ug/L) at MW-18

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **40.0** / **4**<br>= **10.0** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**400.0** - **1600.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **10.0** - **2.353** * **0.0**/**4**$^{½}$<br>= **10.0** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **10.0** + **2.353** * **0.0**/**4**$^{½}$<br>= **10.0** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **3068.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **3068.667**$^{½}$) / 2<br>= [ **192.651**, **335.349** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-2.667**, **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-20

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **334.1** / **4**<br>= **83.525** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**30393.53** - **111622.81**/**4**) / (**4**-1) )$^{½}$<br>= **28.797** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **83.525** - **2.353** * **28.797**/**4**$^{½}$<br>= **49.651** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **83.525** + **2.353** * **28.797**/**4**$^{½}$<br>= **117.399** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **2.166** | Sen's estimator of trend. |
| 7 | var(S) = **4163.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **4163.333**$^{½}$) / 2<br>= [ **180.893**, **347.107** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-1.47**, **4.568** ] | 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-20

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **7870.0** / **4**<br>= **1967.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.55**x**10$^7$** - **6.19**x**10$^7$**/**4**) / (**4**-1) )$^{½}$<br>= **124.466** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **1967.5** - **2.353** * **124.466**/**4**$^{½}$<br>= **1821.093** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **1967.5** + **2.353** * **124.466**/**4**$^{½}$<br>= **2113.907** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **-85.827** | Sen's estimator of trend. |
| 7 | var(S) = **4163.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **4163.333**$^{½}$) / 2<br>= [ **180.893**, **347.107** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-145.453**, **-43.351** ] | Two-sided confidence interval for slope. |
| 10 | UCL(S) < 0 | **Significant decreasing trend.** |

## Worksheet 6 - Assessment Monitoring
## Cadmium, total (ug/L) at MW-20

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **1.6** / **4**<br>= **0.4** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**0.64** - **2.56**/**4**) / (**4**-1) )$^{½}$<br>= **4.21**x**10**$^{-9}$ | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.4** - **2.353** * **4.21**x**10**$^{-9}$/**4**$^{½}$<br>= **0.4** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.4** + **2.353** * **4.21**x**10**$^{-9}$/**4**$^{½}$<br>= **0.4** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **1864.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **1864.333**$^{½}$) / 2<br>= [ **208.387**, **319.613** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | 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-20

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **36.3** / **4**<br>= **9.075** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**341.07** - **1317.69**/**4**) / (**4**-1) )$^{½}$<br>= **1.97** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **9.075** - **2.353** * **1.97**/**4**$^{½}$<br>= **6.757** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **9.075** + **2.353** * **1.97**/**4**$^{½}$<br>= **11.393** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **-1.233** | Sen's estimator of trend. |
| 7 | var(S) = **4163.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **4163.333**$^{½}$) / 2<br>= [ **180.893**, **347.107** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-2.072**, **-0.91** ] | Two-sided confidence interval for slope. |
| 10 | UCL(S) < 0 | **Significant decreasing trend.** |

## Worksheet 6 - Assessment Monitoring
## Zinc, total (ug/L) at MW-20

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **40.0** / **4**<br>= **10.0** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**400.0** - **1600.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **10.0** - **2.353** * **0.0**/**4**$^{½}$<br>= **10.0** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **10.0** + **2.353** * **0.0**/**4**$^{½}$<br>= **10.0** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **-0.044** | Sen's estimator of trend. |
| 7 | var(S) = **3347.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **3347.333**$^{½}$) / 2<br>= [ **189.481**, **338.519** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-6.43**, **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-7

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **25.2** / **4**<br>= **6.3** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**191.6** - **635.04**/**4**) / (**4**-1) )$^{½}$<br>= **3.309** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **6.3** - **2.353** * **3.309**/**4**$^{½}$<br>= **2.408** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **6.3** + **2.353** * **3.309**/**4**$^{½}$<br>= **10.192** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **39** * (**39**-1) / 2<br>= **741** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **4270.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**741** ± **2.576** * **4270.667**$^{½}$) / 2<br>= [ **286.329**, **454.671** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.143** ] | 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-7

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **1230.0** / **4**<br>= **307.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**378626.0** - **1.51**x**10$^6$**/**4**) / (**4**-1) )$^{½}$<br>= **11.561** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **307.5** - **2.353** * **11.561**/**4**$^{½}$<br>= **293.9** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **307.5** + **2.353** * **11.561**/**4**$^{½}$<br>= **321.1** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **6.943** | Sen's estimator of trend. |
| 7 | var(S) = **5842.0** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **5842.0**$^{½}$) / 2<br>= [ **234.554**, **431.446** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **3.468**, **10.622** ] | Two-sided confidence interval for slope. |
| 10 | LCL(S) > 0 | **Significant increasing trend.** |

## Worksheet 6 - Assessment Monitoring
## Cadmium, total (ug/L) at MW-7

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **1.6** / **4**<br>= **0.4** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**0.64** - **2.56**/**4**) / (**4**-1) )$^{½}$<br>= **4.21**x**10**$^{-9}$ | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.4** - **2.353** * **4.21**x**10**$^{-9}$/**4**$^{½}$<br>= **0.4** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.4** + **2.353** * **4.21**x**10**$^{-9}$/**4**$^{½}$<br>= **0.4** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | 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<br>= (**666** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **333.0**, **333.0** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | 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-7

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **37.4** / **4**<br>= **9.35** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**350.7** - **1398.76**/**4**) / (**4**-1) )$^{½}$<br>= **0.58** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **9.35** - **2.353** * **0.58**/**4**$^{½}$<br>= **8.667** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **9.35** + **2.353** * **0.58**/**4**$^{½}$<br>= **10.033** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **0.63** | Sen's estimator of trend. |
| 7 | var(S) = **5253.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **5253.667**$^{½}$) / 2<br>= [ **239.643**, **426.357** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.375**, **0.966** ] | Two-sided confidence interval for slope. |
| 10 | LCL(S) > 0 | **Significant increasing trend.** |

## Worksheet 6 - Assessment Monitoring
## Zinc, total (ug/L) at MW-7

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **20.0** / **4**<br>= **5.0** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**100.0** - **400.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **5.0** - **2.353** * **0.0**/**4**$^{½}$<br>= **5.0** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **5.0** + **2.353** * **0.0**/**4**$^{½}$<br>= **5.0** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **2383.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **2383.333**$^{½}$) / 2<br>= [ **270.121**, **395.879** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

**Attachment D**

Historical VOC Detections

## Table 1

### Historical Volatile Organic Compound Detections

| Constituent | Well | Date | Identifier | Result | Limit | Units |
|---|---|---|---|---|---|---|
| Acetone | GWD-1 | 9/24/2009 | | 76.0 | 10.0 | ug/L |
| Acetone | GWD-1 | 10/13/2017 | | 20.2 | 10.0 | ug/L |
| Benzene | GWD-1 | 4/23/2012 | | 1.2 | 1.0 | ug/L |
| Chloroethane | GWD-1 | 4/23/2012 | | 3.4 | 1.0 | ug/L |
| Acetone | MW-1 | 9/17/2014 | | 11.2 | 10.0 | ug/L |
| Benzene | MW-1 | 3/25/2021 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-1 | 3/16/2022 | | 1.0 | 1.0 | ug/L |
| Benzene | MW-1 | 3/24/2023 | | 1.7 | 1.0 | ug/L |
| Benzene | MW-1 | 5/09/2023 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-1 | 9/17/2014 | | 1.4 | 1.0 | ug/L |
| Chloroethane | MW-1 | 3/25/2021 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-1 | 3/24/2023 | | 1.3 | 1.0 | ug/L |
| Chloroethane | MW-1 | 5/09/2023 | | 1.3 | 1.0 | ug/L |
| Trichloroethylene | MW-1 | 9/16/2021 | | 3 | 1 | ug/L |
| Acetone | MW-10 | 10/10/2011 | | 13.5 | 10.0 | ug/L |
| Acetone | MW-10 | 9/17/2014 | | 18.8 | 10.0 | ug/L |
| Acetone | MW-10 | 10/13/2017 | | 18.7 | 10.0 | ug/L |
| Acetone | MW-10 | 9/06/2018 | | 11.3 | 10.0 | ug/L |
| Acetone | MW-10 | 3/25/2021 | | 10.7 | 10.0 | ug/L |
| Benzene | MW-10 | 9/06/2018 | | 1.4 | 1.0 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-10 | 9/06/2018 | | 8 | 6 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-10 | 4/02/2020 | | 14 | 6 | ug/L |
| Acetone | MW-11 | 10/13/2017 | | 12.1 | 10.0 | ug/L |
| Acetone | MW-13 | 10/13/2017 | | 16.9 | 10.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/16/2008 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 6/17/2008 | | 2.2 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 8/20/2008 | | 1.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 10/16/2008 | | 2.0 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 12/04/2008 | | 1.4 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/16/2009 | | 1.4 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 9/24/2009 | | 1.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/19/2010 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 5/03/2011 | | 1.7 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 10/11/2011 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/23/2012 | | 1.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 9/10/2012 | | 1.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/04/2013 | | 2.2 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 10/11/2013 | | 2.1 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/23/2014 | | 2.4 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 9/18/2014 | | 2.0 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/29/2015 | | 2.2 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 10/06/2015 | | 1.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 4/23/2016 | | 2.5 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 9/01/2016 | | 1.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/22/2017 | | 1.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 10/13/2017 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/09/2018 | | 2.4 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/07/2019 | | 1.7 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 9/26/2019 | | 1.3 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/25/2021 | | 1.2 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/16/2022 | | 1.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-16 | 3/18/2024 | | 1.0 | 1.0 | ug/L |
| 1,2-dichloropropane | MW-16 | 3/16/2022 | | 1 | 1 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/10/1994 | | 2.6 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 6/09/1994 | | 2.6 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/28/2007 | | 3.8 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/27/2007 | | 3.1 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/16/2008 | | 3.5 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 6/17/2008 | | 4.1 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 8/20/2008 | | 4.1 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 10/16/2008 | | 3.2 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 12/04/2008 | | 4.9 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/16/2009 | | 4.2 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/24/2009 | | 3.0 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/19/2010 | | 3.6 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/29/2010 | | 4.2 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 5/03/2011 | | 3.6 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 10/11/2011 | | 3.4 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/23/2012 | | 2.5 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/10/2012 | | 2.7 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/04/2013 | | 2.3 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 10/11/2013 | | 2.0 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/23/2014 | | 1.7 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/29/2015 | | 1.5 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 10/06/2015 | | 2.0 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 4/23/2016 | | 1.6 | 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 |
|---|---|---|---|---|---|---|
| 1,4-dichlorobenzene | MW-16 | 9/01/2016 | | 2.1 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/22/2017 | | 2.6 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 10/13/2017 | | 2.0 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/09/2018 | | 1.8 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/06/2018 | | 2.7 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/07/2019 | | 3.8 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/17/2020 | | 1.8 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/25/2021 | | 1.8 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 9/16/2021 | | 2.2 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/16/2022 | | 2.1 | 1.0 | ug/L |
| 1,4-dichlorobenzene | MW-16 | 3/18/2024 | | 1.8 | 1.0 | ug/L |
| Acetone | MW-16 | 10/13/2017 | | 13.1 | 10.0 | ug/L |
| Benzene | MW-16 | 9/23/1993 | | 2.4 | 2.0 | ug/L |
| Benzene | MW-16 | 3/10/1994 | | 2.1 | 2.0 | ug/L |
| Benzene | MW-16 | 4/07/1995 | | 1.3 | 1.0 | ug/L |
| Benzene | MW-16 | 10/04/1995 | | 1.3 | 1.0 | ug/L |
| Benzene | MW-16 | 9/17/1996 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 3/20/1997 | | 2.1 | 2.0 | ug/L |
| Benzene | MW-16 | 9/11/1997 | | 2.8 | 2.0 | ug/L |
| Benzene | MW-16 | 3/18/1999 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 9/01/1999 | | 2.3 | 2.0 | ug/L |
| Benzene | MW-16 | 4/04/2000 | | 1.7 | 1.0 | ug/L |
| Benzene | MW-16 | 9/28/2000 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-16 | 3/30/2001 | | 1.8 | 1.0 | ug/L |
| Benzene | MW-16 | 10/08/2001 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 4/04/2002 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 9/16/2002 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-16 | 4/02/2003 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 9/23/2003 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 9/09/2004 | | 1.1 | 1.0 | ug/L |
| Benzene | MW-16 | 4/14/2005 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 9/30/2005 | | 1.8 | 1.0 | ug/L |
| Benzene | MW-16 | 4/05/2006 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-16 | 4/28/2007 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 9/27/2007 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 4/16/2008 | | 1.4 | 1.0 | ug/L |
| Benzene | MW-16 | 6/17/2008 | | 1.4 | 1.0 | ug/L |
| Benzene | MW-16 | 8/20/2008 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-16 | 10/16/2008 | | 1.4 | 1.0 | ug/L |
| Benzene | MW-16 | 12/04/2008 | | 1.9 | 1.0 | ug/L |
| Benzene | MW-16 | 3/16/2009 | | 1.7 | 1.0 | ug/L |
| Benzene | MW-16 | 9/24/2009 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 4/19/2010 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 9/29/2010 | | 1.7 | 1.0 | ug/L |
| Benzene | MW-16 | 5/03/2011 | | 1.3 | 1.0 | ug/L |
| Benzene | MW-16 | 10/11/2011 | | 1.3 | 1.0 | ug/L |
| Benzene | MW-16 | 4/23/2012 | | 1.0 | 1.0 | ug/L |
| Benzene | MW-16 | 9/10/2012 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 10/11/2013 | | 1.1 | 1.0 | ug/L |
| Benzene | MW-16 | 10/06/2015 | | 1.0 | 1.0 | ug/L |
| Benzene | MW-16 | 9/01/2016 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-16 | 3/22/2017 | | 1.3 | 1.0 | ug/L |
| Benzene | MW-16 | 10/13/2017 | | 1.1 | 1.0 | ug/L |
| Benzene | MW-16 | 9/06/2018 | | 1.7 | 1.0 | ug/L |
| Benzene | MW-16 | 3/07/2019 | | 2.1 | 1.0 | ug/L |
| Benzene | MW-16 | 4/02/2020 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 3/25/2021 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-16 | 9/16/2021 | | 1.3 | 1.0 | ug/L |
| Benzene | MW-16 | 3/16/2022 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-16 | 3/18/2024 | | 1.5 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/16/2008 | | 9.1 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 6/17/2008 | | 9.9 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 8/20/2008 | | 10.4 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 10/16/2008 | | 9.2 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 12/04/2008 | | 14.5 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/16/2009 | | 12.3 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/24/2009 | | 8.7 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/19/2010 | | 9.2 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/29/2010 | | 11.3 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 5/03/2011 | | 9.6 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 10/11/2011 | | 8.7 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/23/2012 | | 6.6 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/10/2012 | | 7.5 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/04/2013 | | 5.8 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 10/11/2013 | | 6.0 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/23/2014 | | 4.6 | 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 |
|---|---|---|---|---|---|---|
| Chlorobenzene | MW-16 | 9/18/2014 | | 4.3 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/29/2015 | | 4.4 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 10/06/2015 | | 4.9 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/23/2016 | | 3.5 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/01/2016 | | 6.0 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/22/2017 | | 6.4 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 10/13/2017 | | 5.1 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/09/2018 | | 4.7 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/06/2018 | | 8.1 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/07/2019 | | 9.7 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/26/2019 | | 4.8 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 4/02/2020 | | 8.8 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/17/2020 | | 4.7 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/25/2021 | | 5.8 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/16/2021 | | 7.3 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/16/2022 | | 5.2 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/01/2022 | | 2.1 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/24/2023 | | 3.0 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 3/18/2024 | | 5.2 | 1.0 | ug/L |
| Chlorobenzene | MW-16 | 9/25/2024 | | 2.3 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-16 | 9/01/2016 | | 1.1 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-16 | 10/13/2017 | | 1.2 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-16 | 3/07/2019 | | 1.4 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-16 | 3/25/2021 | | 1.3 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-16 | 3/16/2022 | | 2.1 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 10/11/2011 | | 4.0 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 4/23/2012 | | 5.0 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 9/10/2012 | | 3.6 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 4/04/2013 | | 4.3 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 10/11/2013 | | 2.9 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 4/23/2014 | | 4.3 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 9/18/2014 | | 3.6 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 4/29/2015 | | 2.6 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 10/06/2015 | | 2.9 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 4/23/2016 | | 3.2 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 9/01/2016 | | 3.6 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 3/22/2017 | | 2.2 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 10/13/2017 | | 1.6 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 3/09/2018 | | 3.0 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-16 | 3/07/2019 | | 4.6 | 1.0 | ug/L |
| Trichloroethylene | MW-16 | 9/23/1993 | | 1.8 | 1.0 | ug/L |
| Vinyl chloride | MW-16 | 6/17/2008 | | 1.0 | 1.0 | ug/L |
| Vinyl chloride | MW-16 | 9/24/2009 | | 1.6 | 1.0 | ug/L |
| Vinyl chloride | MW-16 | 3/07/2019 | | 2.5 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-18 | 4/23/2012 | | 1.3 | 1.0 | ug/L |
| Acetone | MW-18 | 10/13/2017 | | 18 | 10 | ug/L |
| Benzene | MW-18 | 10/13/2017 | | 1.6 | 1.0 | ug/L |
| Bromomethane | MW-18 | 10/11/2013 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-18 | 10/13/2017 | | 1.6 | 1.0 | ug/L |
| Methyl iodide | MW-18 | 10/11/2013 | | 1.5 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 5/04/2011 | | 1.3 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 10/10/2011 | | 1.7 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/11/2012 | | 1.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 4/05/2013 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 10/11/2013 | | 2.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 4/22/2014 | | 2.5 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/17/2014 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 10/06/2015 | | 1.3 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 4/23/2016 | | 2.2 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/01/2016 | | 1.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 3/22/2017 | | 2.2 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 10/13/2017 | | 1.0 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 3/09/2018 | | 3.1 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/06/2018 | | 3.0 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/17/2020 | | 2.3 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 3/25/2021 | | 2.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/16/2021 | | 3.4 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 3/16/2022 | | 4.9 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/01/2022 | | 3.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 3/24/2023 | | 3.1 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-19 | 9/07/2023 | | 2.9 | 1.0 | ug/L |
| Acetone | MW-19 | 10/13/2017 | | 19.8 | 10.0 | ug/L |
| Acetone | MW-19 | 9/06/2018 | | 15.9 | 10.0 | ug/L |
| Acetone | MW-19 | 9/26/2019 | | 107.0 | 10.0 | ug/L |
| Acetone | MW-19 | 9/17/2020 | | 11.2 | 10.0 | ug/L |
| Benzene | MW-19 | 3/16/2022 | | 1.2 | 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 |
|---|---|---|---|---|---|---|
| Benzene | MW-19 | 9/01/2022 | | 1.0 | 1.0 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-19 | 4/24/2012 | | 33 | 8 | ug/L |
| Chloroethane | MW-19 | 3/16/2022 | | 1.4 | 1.0 | ug/L |
| Chloroethane | MW-19 | 9/01/2022 | | 1.2 | 1.0 | ug/L |
| Chloromethane | MW-19 | 4/23/2016 | | 3.6 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 10/11/2013 | | 1.5 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 4/22/2014 | | 1.2 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 4/23/2016 | | 1.3 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 9/01/2016 | | 1.1 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 3/22/2017 | | 1.5 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 3/09/2018 | | 1.9 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 9/06/2018 | | 2.6 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 9/17/2020 | | 1.7 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 3/25/2021 | | 2.1 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 9/16/2021 | | 2.6 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 3/16/2022 | | 4.7 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 9/01/2022 | | 3.5 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 3/24/2023 | | 2.2 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-19 | 9/07/2023 | | 1.1 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-19 | 4/24/2012 | | 1 | 1 | ug/L |
| Dichlorodifluoromethane | MW-19 | 3/22/2017 | | 1 | 1 | ug/L |
| Vinyl chloride | MW-19 | 9/06/2018 | | 3.2 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 9/17/2020 | | 1.4 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 3/25/2021 | | 1.2 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 9/16/2021 | | 1.9 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 3/16/2022 | | 1.9 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 9/01/2022 | | 2.1 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 3/24/2023 | | 1.0 | 1.0 | ug/L |
| Vinyl chloride | MW-19 | 9/07/2023 | | 1.2 | 1.0 | ug/L |
| Benzene | MW-1D | 9/07/2023 | | 1.1 | 1.0 | ug/L |
| Benzene | MW-1D | 3/18/2024 | | 1.3 | 1.0 | ug/L |
| Chlorobenzene | MW-1D | 9/07/2023 | | 1.0 | 1.0 | ug/L |
| Chlorobenzene | MW-1D | 3/18/2024 | | 1.5 | 1.0 | ug/L |
| Chloroethane | MW-1D | 3/18/2024 | | 1.1 | 1.0 | ug/L |
| Acetone | MW-20 | 10/11/2013 | | 13.0 | 10.0 | ug/L |
| Acetone | MW-20 | 4/23/2014 | | 18.8 | 10.0 | ug/L |
| Acetone | MW-20 | 3/16/2022 | | 57.2 | 10.0 | ug/L |
| Benzene | MW-20 | 9/29/2010 | | 1.0 | 1.0 | ug/L |
| Benzene | MW-20 | 5/04/2011 | | 1.1 | 1.0 | ug/L |
| Benzene | MW-20 | 10/11/2011 | | 1.4 | 1.0 | ug/L |
| Benzene | MW-20 | 9/11/2012 | | 2.3 | 1.0 | ug/L |
| Benzene | MW-20 | 4/05/2013 | | 1.8 | 1.0 | ug/L |
| Benzene | MW-20 | 10/11/2013 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-20 | 4/23/2014 | | 1.6 | 1.0 | ug/L |
| Benzene | MW-20 | 9/18/2014 | | 1.9 | 1.0 | ug/L |
| Benzene | MW-20 | 4/28/2015 | | 1.9 | 1.0 | ug/L |
| Benzene | MW-20 | 10/06/2015 | | 2.0 | 1.0 | ug/L |
| Benzene | MW-20 | 4/23/2016 | | 1.5 | 1.0 | ug/L |
| Benzene | MW-20 | 9/01/2016 | | 1.8 | 1.0 | ug/L |
| Benzene | MW-20 | 3/21/2017 | | 2.6 | 1.0 | ug/L |
| Benzene | MW-20 | 10/13/2017 | | 2.0 | 1.0 | ug/L |
| Benzene | MW-20 | 3/09/2018 | | 2.9 | 1.0 | ug/L |
| Benzene | MW-20 | 9/06/2018 | | 3.6 | 1.0 | ug/L |
| Benzene | MW-20 | 3/07/2019 | | 2.5 | 1.0 | ug/L |
| Benzene | MW-20 | 9/26/2019 | | 3.1 | 1.0 | ug/L |
| Benzene | MW-20 | 4/02/2020 | | 2.8 | 1.0 | ug/L |
| Benzene | MW-20 | 3/25/2021 | | 3.3 | 1.0 | ug/L |
| Benzene | MW-20 | 9/16/2021 | | 3.0 | 1.0 | ug/L |
| Benzene | MW-20 | 3/16/2022 | | 3.8 | 1.0 | ug/L |
| Benzene | MW-20 | 9/01/2022 | | 2.6 | 1.0 | ug/L |
| Benzene | MW-20 | 3/24/2023 | | 2.6 | 1.0 | ug/L |
| Benzene | MW-20 | 9/07/2023 | | 2.0 | 1.0 | ug/L |
| Benzene | MW-20 | 3/18/2024 | | 2.2 | 1.0 | ug/L |
| Benzene | MW-20 | 9/25/2024 | | 2.1 | 1.0 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-20 | 9/16/2021 | | 8 | 6 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-20 | 3/16/2022 | | 7 | 6 | ug/L |
| Chlorobenzene | MW-20 | 9/06/2018 | | 1.2 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 4/02/2020 | | 1.0 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 9/17/2020 | | 1.2 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 3/25/2021 | | 1.1 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 9/16/2021 | | 1.1 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 3/16/2022 | | 1.1 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 9/01/2022 | | 1.1 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 9/07/2023 | | 1.0 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 3/18/2024 | | 1.2 | 1.0 | ug/L |
| Chlorobenzene | MW-20 | 9/25/2024 | | 1.9 | 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 |
|---|---|---|---|---|---|---|
| Chloroethane | MW-20 | 4/19/2010 | | 1.9 | 1.0 | ug/L |
| Chloroethane | MW-20 | 5/27/2010 | | 3.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 7/28/2010 | | 3.1 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/29/2010 | | 4.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 11/03/2010 | | 3.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 5/04/2011 | | 4.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 10/11/2011 | | 4.3 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/11/2012 | | 4.5 | 1.0 | ug/L |
| Chloroethane | MW-20 | 4/05/2013 | | 2.3 | 1.0 | ug/L |
| Chloroethane | MW-20 | 10/11/2013 | | 3.8 | 1.0 | ug/L |
| Chloroethane | MW-20 | 4/23/2014 | | 3.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/18/2014 | | 2.1 | 1.0 | ug/L |
| Chloroethane | MW-20 | 4/28/2015 | | 2.9 | 1.0 | ug/L |
| Chloroethane | MW-20 | 10/06/2015 | | 2.3 | 1.0 | ug/L |
| Chloroethane | MW-20 | 4/23/2016 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-20 | 3/21/2017 | | 2.4 | 1.0 | ug/L |
| Chloroethane | MW-20 | 10/13/2017 | | 2.3 | 1.0 | ug/L |
| Chloroethane | MW-20 | 3/09/2018 | | 2.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/06/2018 | | 2.8 | 1.0 | ug/L |
| Chloroethane | MW-20 | 3/07/2019 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/26/2019 | | 2.0 | 1.0 | ug/L |
| Chloroethane | MW-20 | 4/02/2020 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/17/2020 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-20 | 3/25/2021 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/16/2021 | | 1.8 | 1.0 | ug/L |
| Chloroethane | MW-20 | 3/16/2022 | | 1.6 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/01/2022 | | 1.7 | 1.0 | ug/L |
| Chloroethane | MW-20 | 9/07/2023 | | 1.5 | 1.0 | ug/L |
| Chloroethane | MW-20 | 3/18/2024 | | 1.2 | 1.0 | ug/L |
| 1,1,1-trichloroethane | MW-3 | 9/23/1993 | | 1.1 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 4/16/2008 | | 1.8 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 6/17/2008 | | 1.4 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 4/19/2010 | | 3.1 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 5/03/2011 | | 1.7 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 4/23/2012 | | 1.6 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 9/17/2014 | | 1.3 | 1.0 | ug/L |
| 1,1-dichloroethane | MW-3 | 9/01/2016 | | 1.5 | 1.0 | ug/L |
| Acetone | MW-3 | 10/13/2017 | | 15.4 | 10.0 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-3 | 9/16/2021 | | 8 | 6 | ug/L |
| Chloromethane | MW-3 | 4/19/2010 | | 1 | 1 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 4/16/2008 | | 4.0 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 6/17/2008 | | 2.6 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 9/24/2009 | | 1.0 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 4/19/2010 | | 6.6 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 9/29/2010 | | 1.3 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 5/03/2011 | | 2.8 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 10/11/2011 | | 1.4 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 4/23/2012 | | 2.8 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 9/17/2014 | | 2.0 | 1.0 | ug/L |
| Cis-1,2-dichloroethylene | MW-3 | 9/01/2016 | | 2.3 | 1.0 | ug/L |
| Dichlorodifluoromethane | MW-3 | 4/19/2010 | | 1.2 | 1.0 | ug/L |
| Trichloroethylene | MW-3 | 9/23/1993 | | 1.4 | 1.0 | ug/L |
| 1,1-dichloropropene | MW-7 | 3/25/2021 | | 3.7 | 1.0 | ug/L |
| 2,4,5-t | MW-7 | 3/25/2021 | | 2.0 | .5 | ug/L |
| Acetone | MW-7 | 10/13/2017 | | 12.4 | 10.0 | ug/L |
| Benzene | MW-7 | 9/16/2021 | | 1.4 | 1.0 | ug/L |
| Bis(2-ethylhexyl) phthalate | MW-7 | 9/01/2022 | | 9 | 6 | ug/L |

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

**Attachment E**

Assessment Statistics for VOCs

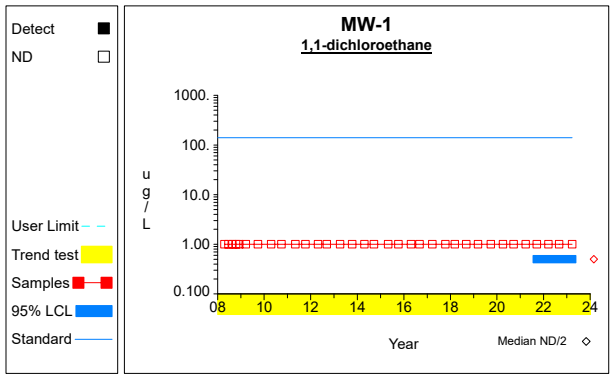
## Table 1

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

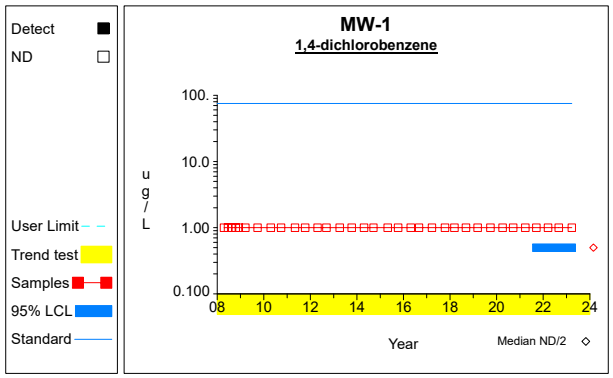
| Constituent | Units | Well | N | Mean | SD | Factor | 95% LCL | 95% UCL | Standard | Trend | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-dichloroethane | ug/L | MW-1 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 140.000 | | |
| 1,4-dichlorobenzene | ug/L | MW-1 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 75.000 | | |
| Benzene | ug/L | MW-1 | 4 | 1.075 | 0.665 | 1.176 | 0.293 | 1.857 | 5.000 | | |
| Chlorobenzene | ug/L | MW-1 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 100.000 | | |
| Chloroethane | ug/L | MW-1 | 4 | 0.900 | 0.462 | 1.176 | 0.357 | 1.443 | 2800.000 | | |
| Cis-1,2-dichloroethylene | ug/L | MW-1 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 70.000 | | |
| Vinyl chloride | ug/L | MW-1 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2.000 | | |
| 1,1-dichloroethane | ug/L | MW-16 | 4 | 0.625 | 0.250 | 1.176 | 0.331 | 0.919 | 140.000 | | |
| 1,4-dichlorobenzene | ug/L | MW-16 | 4 | 0.825 | 0.650 | 1.176 | 0.060 | 1.590 | 75.000 | dec | |
| Benzene | ug/L | MW-16 | 4 | 0.750 | 0.500 | 1.176 | 0.162 | 1.338 | 5.000 | | |
| Chlorobenzene | ug/L | MW-16 | 4 | 2.750 | 1.943 | 1.176 | 0.464 | 5.036 | 100.000 | dec | |
| Chloroethane | ug/L | MW-16 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2800.000 | | |
| Cis-1,2-dichloroethylene | ug/L | MW-16 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 70.000 | | |
| Vinyl chloride | ug/L | MW-16 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2.000 | | |
| 1,1-dichloroethane | ug/L | MW-19 | 4 | 3.675 | 0.903 | 1.176 | 2.613 | 4.737 | 140.000 | inc | |
| 1,4-dichlorobenzene | ug/L | MW-19 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 75.000 | | |
| Benzene | ug/L | MW-19 | 4 | 0.800 | 0.356 | 1.176 | 0.381 | 1.219 | 5.000 | | |
| Chlorobenzene | ug/L | MW-19 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 100.000 | | |
| Chloroethane | ug/L | MW-19 | 4 | 0.900 | 0.469 | 1.176 | 0.348 | 1.452 | 2800.000 | | |
| Cis-1,2-dichloroethylene | ug/L | MW-19 | 4 | 2.875 | 1.563 | 1.176 | 1.037 | 4.713 | 70.000 | | |
| Vinyl chloride | ug/L | MW-19 | 4 | 1.550 | 0.532 | 1.176 | 0.924 | 2.176 | 2.000 | | |
| 1,1-dichloroethane | ug/L | MW-1D | 3 | | | | | | | | * |
| 1,4-dichlorobenzene | ug/L | MW-1D | 3 | | | | | | | | * |
| Benzene | ug/L | MW-1D | 3 | | | | | | | | * |
| Chlorobenzene | ug/L | MW-1D | 3 | | | | | | | | * |
| Chloroethane | ug/L | MW-1D | 3 | | | | | | | | * |
| Cis-1,2-dichloroethylene | ug/L | MW-1D | 3 | | | | | | | | * |
| Vinyl chloride | ug/L | MW-1D | 3 | | | | | | | | * |
| 1,1-dichloroethane | ug/L | MW-20 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 140.000 | | |
| 1,4-dichlorobenzene | ug/L | MW-20 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 75.000 | | |
| Benzene | ug/L | MW-20 | 4 | 2.225 | 0.263 | 1.176 | 1.916 | 2.534 | 5.000 | inc | |
| Chlorobenzene | ug/L | MW-20 | 4 | 1.150 | 0.580 | 1.176 | 0.467 | 1.833 | 100.000 | | |
| Chloroethane | ug/L | MW-20 | 4 | 0.925 | 0.506 | 1.176 | 0.330 | 1.520 | 2800.000 | dec | |
| Cis-1,2-dichloroethylene | ug/L | MW-20 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 70.000 | | |
| Vinyl chloride | ug/L | MW-20 | 4 | 0.500 | 0.000 | 1.176 | 0.500 | 0.500 | 2.000 | | |

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

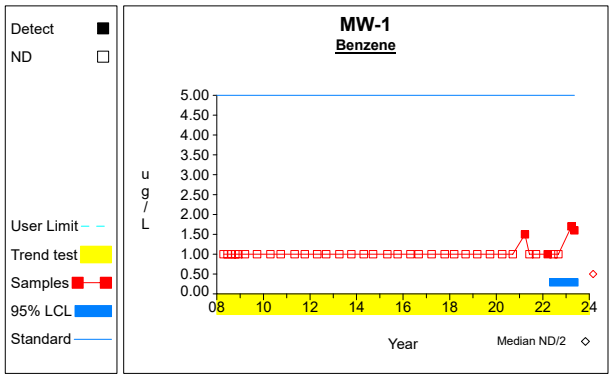
# Confidence Limits (Assessment)



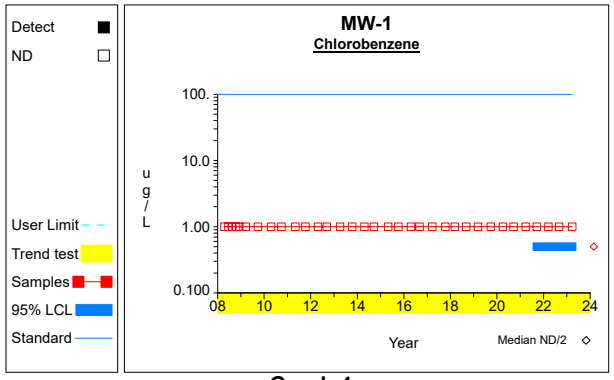

Graph 1



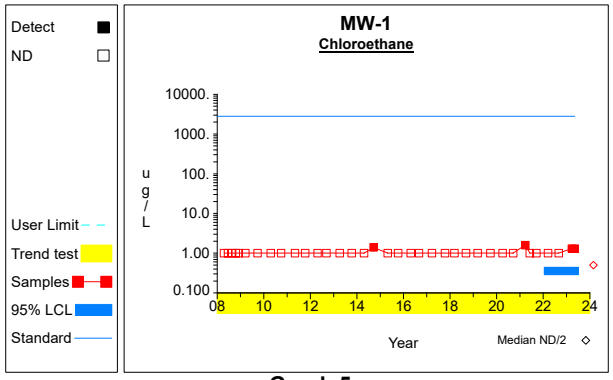

Graph 2



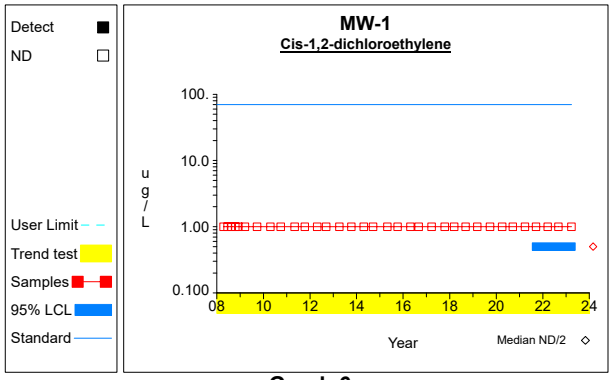

Graph 3



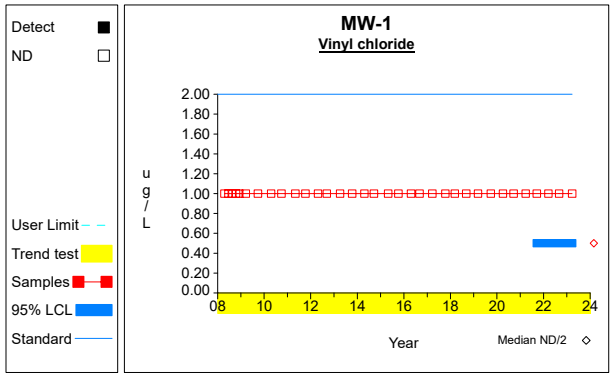

Graph 4




Graph 5

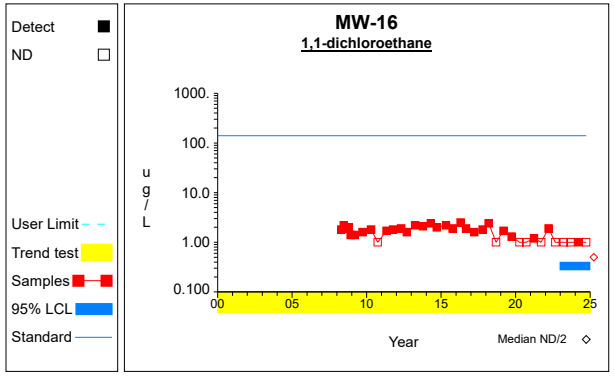



Graph 6

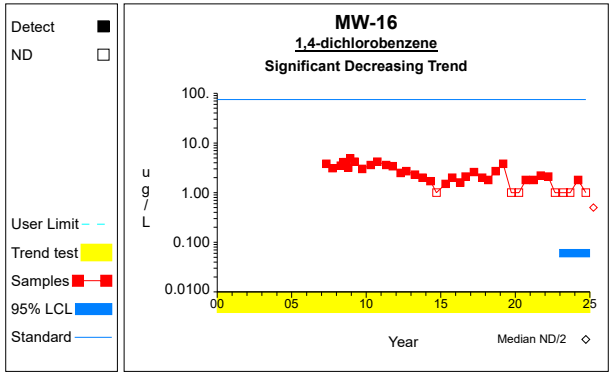



Graph 7

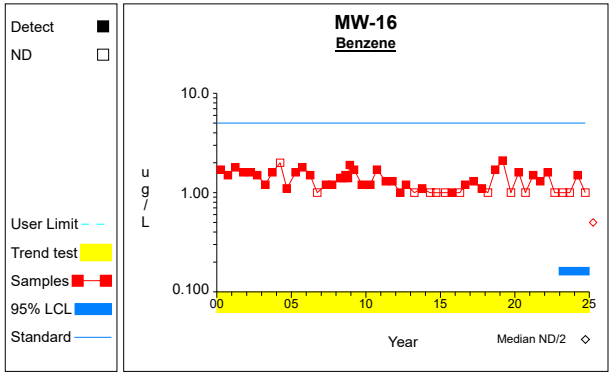
# Confidence Limits (Assessment)



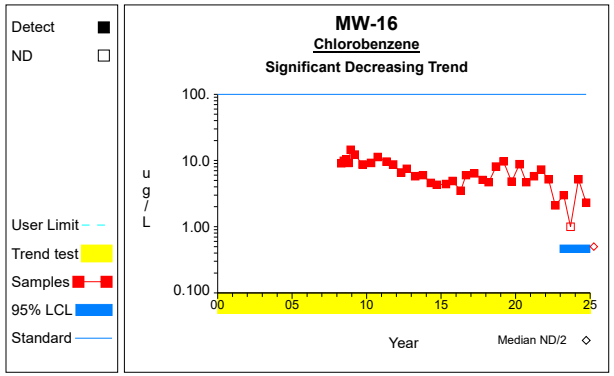

Graph 8



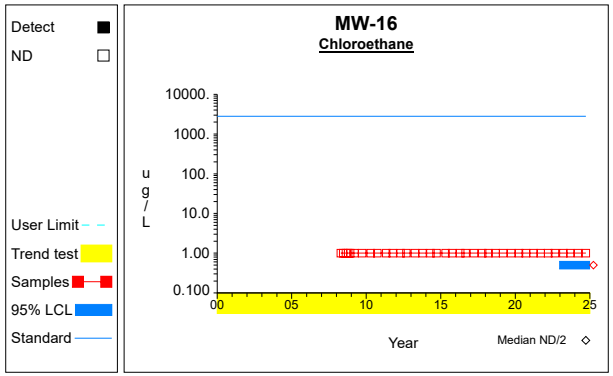

Graph 9



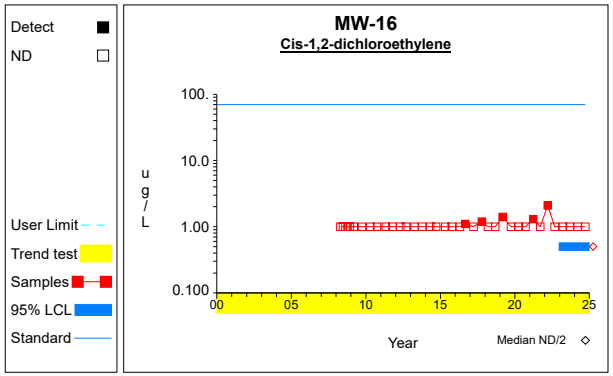

Graph 10



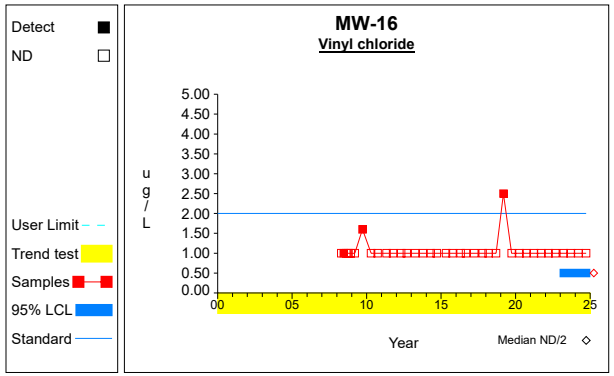

Graph 11




Graph 12

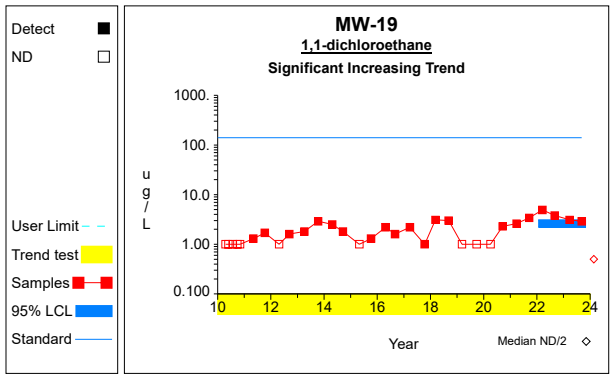



Graph 13

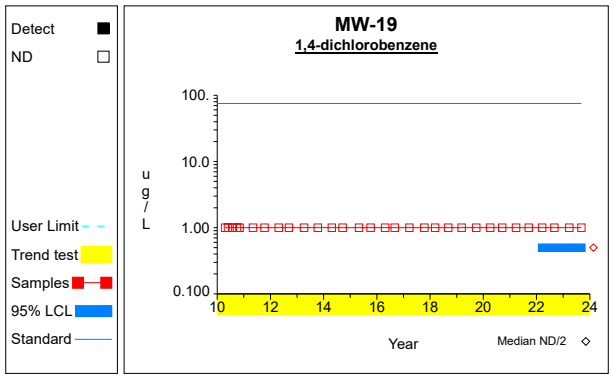



Graph 14

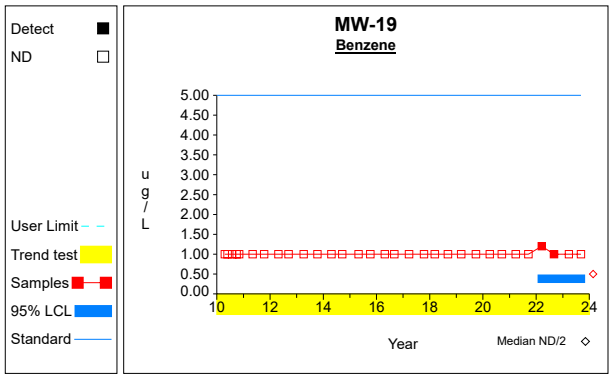
# Confidence Limits (Assessment)



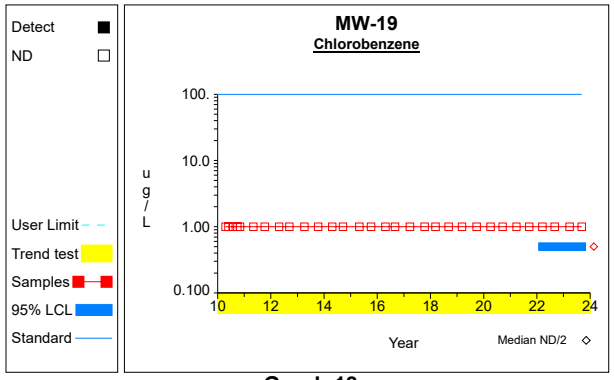

Graph 15



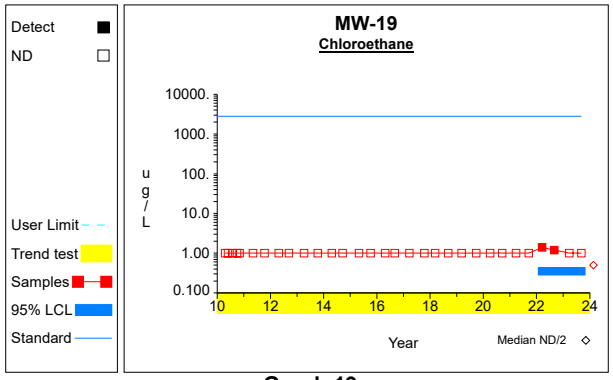

Graph 16



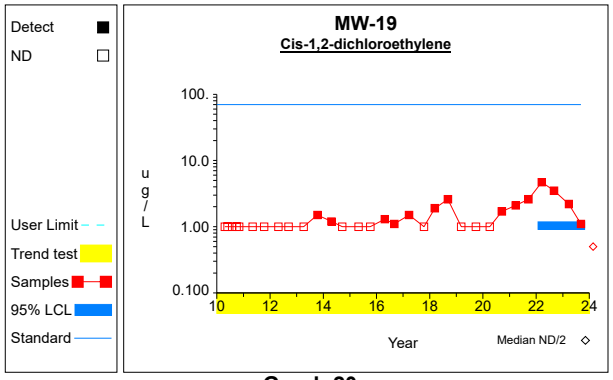

Graph 17



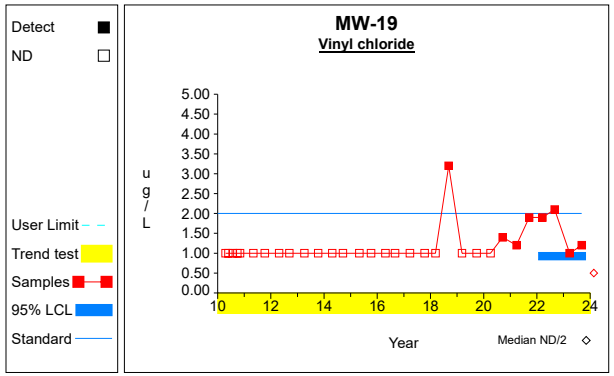

Graph 18




Graph 19

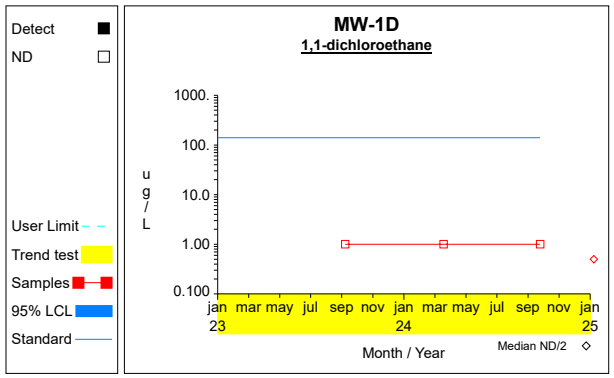



Graph 20

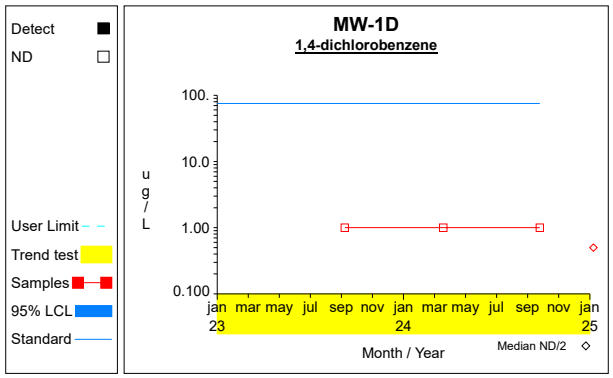



Graph 21

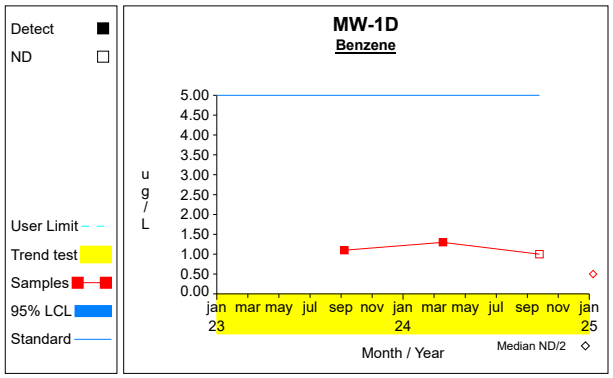
# Confidence Limits (Assessment)



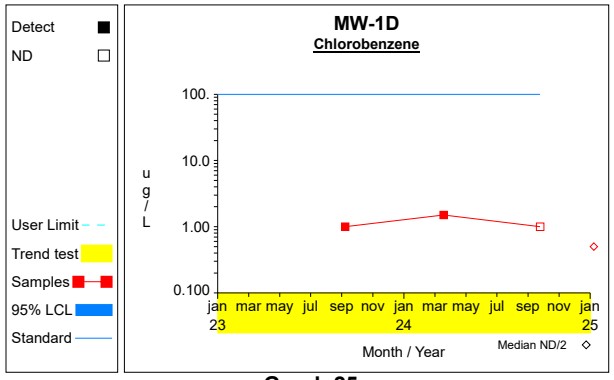

Graph 22



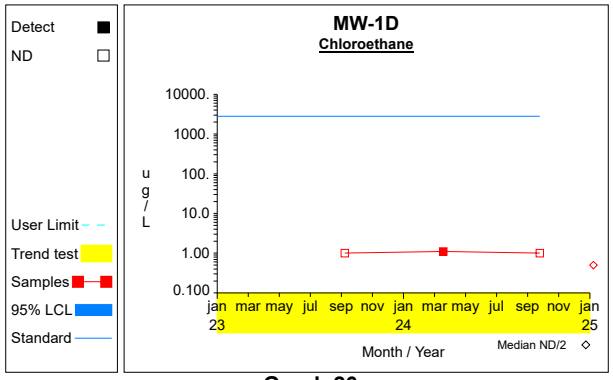

Graph 23



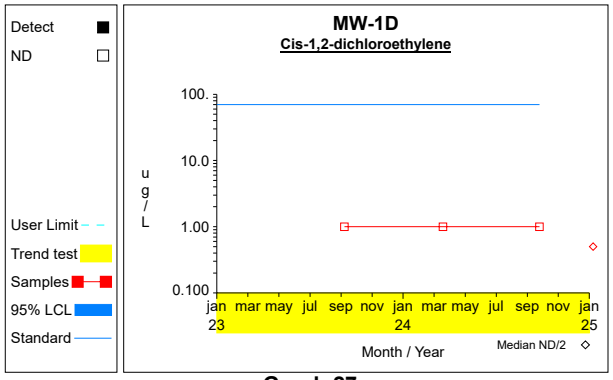

Graph 24



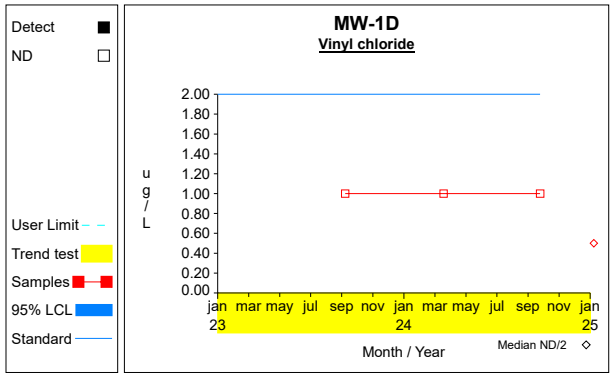

Graph 25




Graph 26

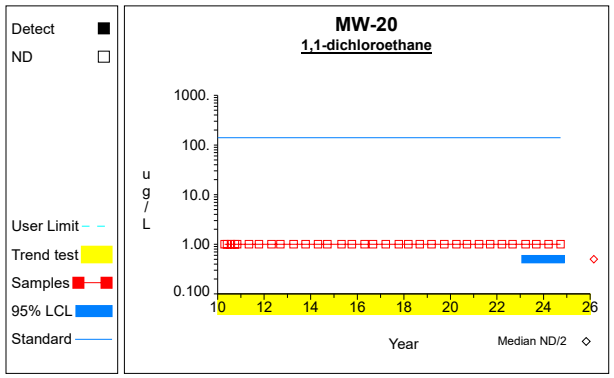



Graph 27

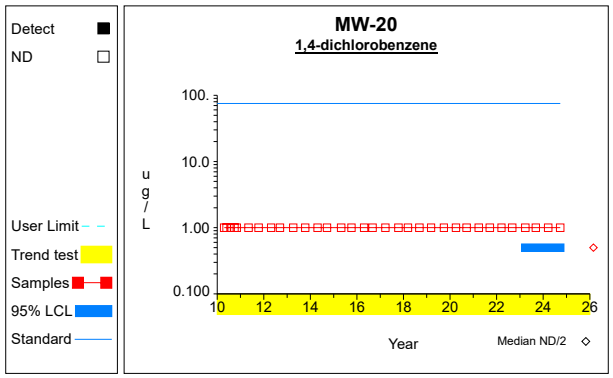



Graph 28

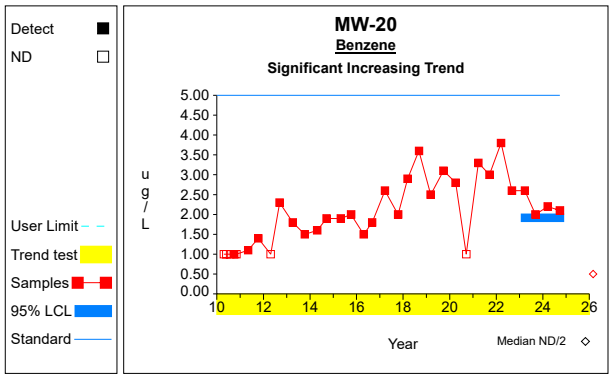
# Confidence Limits (Assessment)



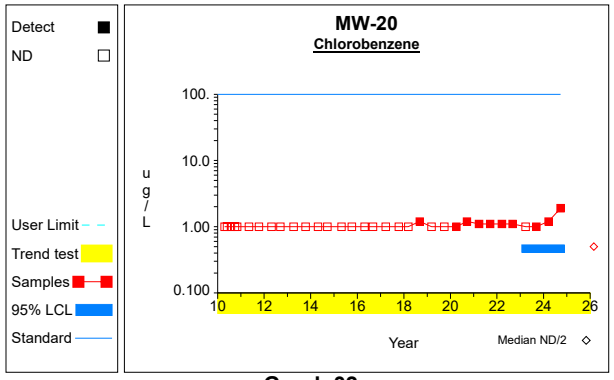

Graph 29



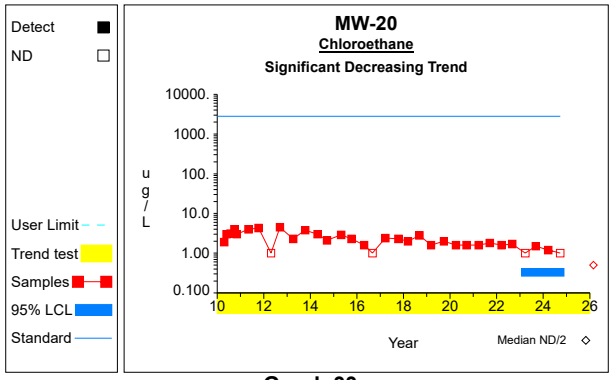

Graph 30



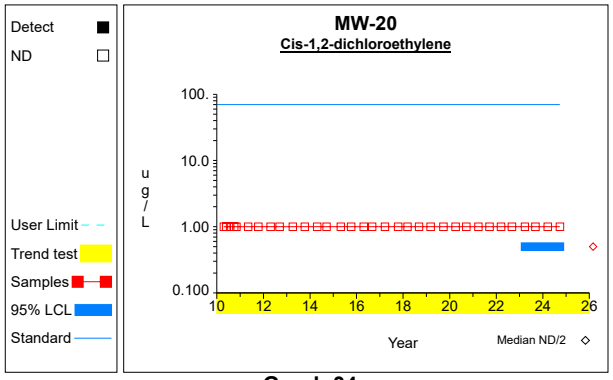

Graph 31



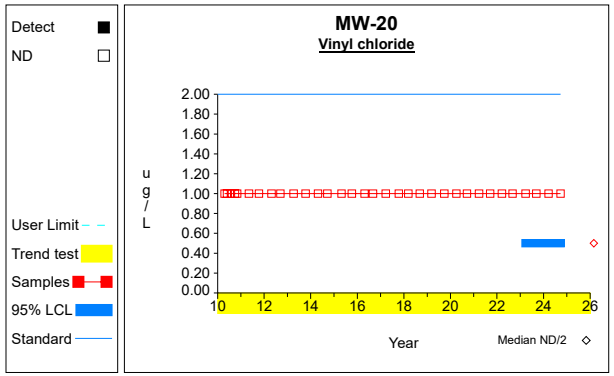

Graph 32




Graph 33




Graph 34




Graph 35

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

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **34** * (**34**-1) / 2<br>= **561** | 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<br>= (**561** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **280.5**, **280.5** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **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-1

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **34** * (**34**-1) / 2<br>= **561** | 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<br>= (**561** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **280.5**, **280.5** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **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-1

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **4.3** / **4**<br>= **1.075** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**5.95** - **18.49**/**4**) / (**4**-1) )$^{½}$<br>= **0.665** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **1.075** - **2.353** * **0.665**/**4**$^{½}$<br>= **0.293** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **1.075** + **2.353** * **0.665**/**4**$^{½}$<br>= **1.857** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **1680.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **1680.667**$^{½}$) / 2<br>= [ **280.197**, **385.803** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **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-1

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **34** * (**34**-1) / 2<br>= **561** | 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<br>= (**561** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **280.5**, **280.5** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **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-1

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **3.6** / **4**<br>= **0.9** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**3.88** - **12.96**/**4**) / (**4**-1) )$^{½}$<br>= **0.462** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.9** - **2.353** * **0.462**/**4**$^{½}$<br>= **0.357** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.9** + **2.353** * **0.462**/**4**$^{½}$<br>= **1.443** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **36** * (**36**-1) / 2<br>= **630** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **1586.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**630** ± **2.576** * **1586.333**$^{½}$) / 2<br>= [ **263.701**, **366.299** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

## Worksheet 6 - Assessment Monitoring
## Cis-1,2-dichloroethylene (ug/L) at MW-1

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **34** * (**34**-1) / 2<br>= **561** | 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<br>= (**561** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **280.5**, **280.5** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

## Worksheet 6 - Assessment Monitoring
## Vinyl chloride (ug/L) at MW-1

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **34** * (**34**-1) / 2<br>= **561** | 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<br>= (**561** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **280.5**, **280.5** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

## Worksheet 6 - Assessment Monitoring
## 1,1-dichloroethane (ug/L) at MW-16

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.5** / **4**<br>= **0.625** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.75** - **6.25**/**4**) / (**4**-1) )$^{½}$<br>= **0.25** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.625** - **2.353** * **0.25**/**4**$^{½}$<br>= **0.331** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.625** + **2.353** * **0.25**/**4**$^{½}$<br>= **0.919** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **-0.064** | Sen's estimator of trend. |
| 7 | var(S) = **5717.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **5717.333**$^{½}$) / 2<br>= [ **235.61**, **430.39** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-0.116**, **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-16

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **3.3** / **4**<br>= **0.825** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**3.99** - **10.89**/**4**) / (**4**-1) )$^{½}$<br>= **0.65** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.825** - **2.353** * **0.65**/**4**$^{½}$<br>= **0.06** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.825** + **2.353** * **0.65**/**4**$^{½}$<br>= **1.59** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **39** * (**39**-1) / 2<br>= **741** | Number of sample pairs during trend detection period. |
| 6 | S = **-0.182** | Sen's estimator of trend. |
| 7 | var(S) = **6771.0** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**741** ± **2.576** * **6771.0**$^{½}$) / 2<br>= [ **264.516**, **476.484** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-0.246**, **-0.112** ] | Two-sided confidence interval for slope. |
| 10 | UCL(S) < 0 | **Significant decreasing trend.** |

## Worksheet 6 - Assessment Monitoring
## Benzene (ug/L) at MW-16

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **3.0** / **4**<br>= **0.75** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**3.0** - **9.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.5** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.75** - **2.353** * **0.5**/**4**$^{½}$<br>= **0.162** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.75** + **2.353** * **0.5**/**4**$^{½}$<br>= **1.338** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **53** * (**53**-1) / 2<br>= **1378** | Number of sample pairs during trend detection period. |
| 6 | S = **-0.029** | Sen's estimator of trend. |
| 7 | var(S) = **16534.0** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**1378** ± **2.576** * **16534.0**$^{½}$) / 2<br>= [ **523.383**, **854.617** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-0.054**, **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-16

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **11.0** / **4**<br>= **2.75** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**41.58** - **121.0**/**4**) / (**4**-1) )$^{½}$<br>= **1.943** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **2.75** - **2.353** * **1.943**/**4**$^{½}$<br>= **0.464** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **2.75** + **2.353** * **1.943**/**4**$^{½}$<br>= **5.036** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **-0.432** | Sen's estimator of trend. |
| 7 | var(S) = **5840.0** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **5840.0**$^{½}$) / 2<br>= [ **234.571**, **431.429** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-0.639**, **-0.228** ] | Two-sided confidence interval for slope. |
| 10 | UCL(S) < 0 | **Significant decreasing trend.** |

## Worksheet 6 - Assessment Monitoring
## Chloroethane (ug/L) at MW-16

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | 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<br>= (**666** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **333.0**, **333.0** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

## Worksheet 6 - Assessment Monitoring
## Cis-1,2-dichloroethylene (ug/L) at MW-16

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **2043.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **2043.333**$^{½}$) / 2<br>= [ **274.778**, **391.222** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

## Worksheet 6 - Assessment Monitoring
## Vinyl chloride (ug/L) at MW-16

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **37** * (**37**-1) / 2<br>= **666** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **1295.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**666** ± **2.576** * **1295.667**$^{½}$) / 2<br>= [ **286.638**, **379.362** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

## Worksheet 6 - Assessment Monitoring
## 1,1-dichloroethane (ug/L) at MW-19

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **14.7** / **4**<br>= **3.675** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**56.47** - **216.09**/**4**) / (**4**-1) )$^{½}$<br>= **0.903** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **3.675** - **2.353** * **0.903**/**4**$^{½}$<br>= **2.613** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **3.675** + **2.353** * **0.903**/**4**$^{½}$<br>= **4.737** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **31** * (**31**-1) / 2<br>= **465** | Number of sample pairs during trend detection period. |
| 6 | S = **0.182** | Sen's estimator of trend. |
| 7 | var(S) = **3330.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**465** ± **2.576** * **3330.667**$^{½}$) / 2<br>= [ **158.167**, **306.833** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.035**, **0.288** ] | Two-sided confidence interval for slope. |
| 10 | LCL(S) > 0 | **Significant increasing trend.** |

## Worksheet 6 - Assessment Monitoring
## 1,4-dichlorobenzene (ug/L) at MW-19

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **31** * (**31**-1) / 2<br>= **465** | 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<br>= (**465** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **232.5**, **232.5** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **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-19

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **3.2** / **4**<br>= **0.8** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**2.94** - **10.24**/**4**) / (**4**-1) )$^{½}$<br>= **0.356** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.8** - **2.353** * **0.356**/**4**$^{½}$<br>= **0.381** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.8** + **2.353** * **0.356**/**4**$^{½}$<br>= **1.219** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **31** * (**31**-1) / 2<br>= **465** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **619.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**465** ± **2.576** * **619.667**$^{½}$) / 2<br>= [ **200.438**, **264.562** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **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-19

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **31** * (**31**-1) / 2<br>= **465** | 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<br>= (**465** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **232.5**, **232.5** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **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-19

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **3.6** / **4**<br>= **0.9** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**3.9** - **12.96**/**4**) / (**4**-1) )$^{½}$<br>= **0.469** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.9** - **2.353** * **0.469**/**4**$^{½}$<br>= **0.348** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.9** + **2.353** * **0.469**/**4**$^{½}$<br>= **1.452** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **31** * (**31**-1) / 2<br>= **465** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **619.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**465** ± **2.576** * **619.667**$^{½}$) / 2<br>= [ **200.438**, **264.562** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

## Worksheet 6 - Assessment Monitoring
## Cis-1,2-dichloroethylene (ug/L) at MW-19

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **11.5** / **4**<br>= **2.875** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**40.39** - **132.25**/**4**) / (**4**-1) )$^{½}$<br>= **1.563** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **2.875** - **2.353** * **1.563**/**4**$^{½}$<br>= **1.037** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **2.875** + **2.353** * **1.563**/**4**$^{½}$<br>= **4.713** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **31** * (**31**-1) / 2<br>= **465** | Number of sample pairs during trend detection period. |
| 6 | S = **0.118** | Sen's estimator of trend. |
| 7 | var(S) = **2869.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**465** ± **2.576** * **2869.333**$^{½}$) / 2<br>= [ **163.507**, **301.493** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.192** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

## Worksheet 6 - Assessment Monitoring
## Vinyl chloride (ug/L) at MW-19

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **6.2** / **4**<br>= **1.55** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**10.46** - **38.44**/**4**) / (**4**-1) )$^{½}$<br>= **0.532** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **1.55** - **2.353** * **0.532**/**4**$^{½}$<br>= **0.924** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **1.55** + **2.353** * **0.532**/**4**$^{½}$<br>= **2.176** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **31** * (**31**-1) / 2<br>= **465** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **2026.0** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**465** ± **2.576** * **2026.0**$^{½}$) / 2<br>= [ **174.526**, **290.474** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.054** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

## Worksheet 6 - Assessment Monitoring
## 1,1-dichloroethane (ug/L) at MW-1D

Insufficient data to perform analysis

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

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**
**Benzene (ug/L) at MW-1D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**
**Chlorobenzene (ug/L) at MW-1D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**
**Chloroethane (ug/L) at MW-1D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**
**Cis-1,2-dichloroethylene (ug/L) at MW-1D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**
**Vinyl chloride (ug/L) at MW-1D**

Insufficient data to perform analysis

## Worksheet 6 - Assessment Monitoring
## 1,1-dichloroethane (ug/L) at MW-20

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | 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<br>= (**528** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **264.0**, **264.0** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **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-20

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | 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<br>= (**528** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **264.0**, **264.0** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **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-20

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **8.9** / **4**<br>= **2.225** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**20.01** - **79.21**/**4**) / (**4**-1) )$^{½}$<br>= **0.263** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **2.225** - **2.353** * **0.263**/**4**$^{½}$<br>= **1.916** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **2.225** + **2.353** * **0.263**/**4**$^{½}$<br>= **2.534** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **0.168** | Sen's estimator of trend. |
| 7 | var(S) = **4126.667** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **4126.667**$^{½}$) / 2<br>= [ **181.26**, **346.74** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.08**, **0.24** ] | Two-sided confidence interval for slope. |
| 10 | LCL(S) > 0 | **Significant increasing trend.** |

## Worksheet 6 - Assessment Monitoring
## Chlorobenzene (ug/L) at MW-20

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **4.6** / **4**<br>= **1.15** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**6.3** - **21.16**/**4**) / (**4**-1) )$^{½}$<br>= **0.58** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **1.15** - **2.353** * **0.58**/**4**$^{½}$<br>= **0.467** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **1.15** + **2.353** * **0.58**/**4**$^{½}$<br>= **1.833** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **0.0** | Sen's estimator of trend. |
| 7 | var(S) = **2718.333** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **2718.333**$^{½}$) / 2<br>= [ **196.847**, **331.153** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.055** ] | 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-20

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **3.7** / **4**<br>= **0.925** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**4.19** - **13.69**/**4**) / (**4**-1) )$^{½}$<br>= **0.506** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.925** - **2.353** * **0.506**/**4**$^{½}$<br>= **0.33** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.925** + **2.353** * **0.506**/**4**$^{½}$<br>= **1.52** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | Number of sample pairs during trend detection period. |
| 6 | S = **-0.156** | Sen's estimator of trend. |
| 7 | var(S) = **4119.0** | Variance estimate for slope. |
| 8 | M(S) = (**N'** ± **Z**$_{.995}$ * **var(S)**$^{½}$) / 2<br>= (**528** ± **2.576** * **4119.0**$^{½}$) / 2<br>= [ **181.337**, **346.663** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **-0.241**, **-0.082** ] | Two-sided confidence interval for slope. |
| 10 | UCL(S) < 0 | **Significant decreasing trend.** |

## Worksheet 6 - Assessment Monitoring
## Cis-1,2-dichloroethylene (ug/L) at MW-20

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | 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<br>= (**528** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **264.0**, **264.0** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

## Worksheet 6 - Assessment Monitoring
## Vinyl chloride (ug/L) at MW-20

| Step | Equation | Description |
|---|---|---|
| 1 | $\overline{X}$ = **sum[X]** / **N**<br>= **2.0** / **4**<br>= **0.5** | Compute the mean of the last 4 measurements. |
| 2 | S = ( (**sum[X$^2$]** - **sum[X]**$^2$/**N**) / (**N**-1) )$^{½}$<br>= ( (**1.0** - **4.0**/**4**) / (**4**-1) )$^{½}$<br>= **0.0** | Compute sd of the last 4 measurements. |
| 3 | LCL = $\overline{\mathbf{X}}$ - **tS**/**N**$^{½}$<br>= **0.5** - **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute lower confidence limit for the mean of the last 4 measurements. |
| 4 | UCL = $\overline{\mathbf{X}}$ + **tS**/**N**$^{½}$<br>= **0.5** + **2.353** * **0.0**/**4**$^{½}$<br>= **0.5** | Compute upper confidence limit for the mean of the last 4 measurements. |
| 5 | N' = **N** * (**N**-1) / 2<br>= **33** * (**33**-1) / 2<br>= **528** | 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<br>= (**528** ± **2.576** * **0.0**$^{½}$) / 2<br>= [ **264.0**, **264.0** ] | Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M$^{th}$ largest slope estimates for the values shown. When the values are not integers, interpolation is used. |
| 9 | CL(S) = [ **0.0**, **0.0** ] | Two-sided confidence interval for slope. |
| 10 | the interval includes 0 | There is no significant trend. |

# Appendix C

## Laboratory Reports for Reporting Period

*With Chain of Custody*

Microbac Laboratories, Inc., Newton

# CERTIFICATE OF ANALYSIS

## 1HC1337

Project Description

6047

For:

Todd Whipple

**HLW Engineering**

204 West Broad St

Story City, IA 50248

Sue Thompson

Client Services Manager

Tuesday, January 21, 2025

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

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

MICROBAC®

Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC1337

***Revised Report: Amended - See Case Narrative***

**HLW Engineering**

Todd Whipple
204 West Broad St
Story City, IA 50248

**Project Name: 6047**

Project / PO Number: N/A
Received: 03/19/2024
Reported: 01/21/2025

**Case Narrative**

**Amended Report January 21, 2025:** Sample 1HC1337-10 was not included in the original report due to a laboratory error. The sample was analyzed outside of the established holding time and those results are included in this report.

Tammy McDermott
Quality Assurance Specialist

**Sample Summary Report**

| Sample Name | Laboratory ID | Client Matrix | Sample Type | Sample Begin | Sample Taken | Lab Received |
|---|---|---|---|---|---|---|
| MW-1D | 1HC1337-01 | Aqueous | GRAB | | 03/18/24 08:26 | 03/19/24 10:45 |
| MW-3 | 1HC1337-02 | Aqueous | GRAB | | 03/18/24 09:27 | 03/19/24 10:45 |
| MW-7 | 1HC1337-03 | Aqueous | GRAB | | 03/18/24 11:44 | 03/19/24 10:45 |
| MW-10 | 1HC1337-04 | Aqueous | GRAB | | 03/18/24 12:25 | 03/19/24 10:45 |
| MW-13 | 1HC1337-05 | Aqueous | GRAB | | 03/18/24 11:08 | 03/19/24 10:45 |
| MW-14 | 1HC1337-06 | Aqueous | GRAB | | 03/18/24 10:51 | 03/19/24 10:45 |
| MW-16 | 1HC1337-07 | Aqueous | GRAB | | 03/18/24 10:14 | 03/19/24 10:45 |
| MW-17 (b) | 1HC1337-08 | Aqueous | GRAB | | 03/18/24 09:08 | 03/19/24 10:45 |
| MW-18 | 1HC1337-09 | Aqueous | GRAB | | 03/18/24 09:52 | 03/19/24 10:45 |
| MW-19 | 1HC1337-10 | Aqueous | GRAB | | 03/18/24 11:27 | 03/19/24 10:45 |
| MW-20 | 1HC1337-11 | Aqueous | GRAB | | 03/18/24 12:07 | 03/19/24 10:45 |
| GWD-1 | 1HC1337-12 | Aqueous | GRAB | | 03/18/24 10:34 | 03/19/24 10:45 |
| Duplicate | 1HC1337-13 | Aqueous | GRAB | | 03/18/24 09:52 | 03/19/24 10:45 |
| MW-44 (b) | 1HC1337-14 | Aqueous | GRAB | | 03/18/24 08:47 | 03/19/24 10:45 |

**Analytical Testing Parameters**

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-1D | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-01 | **Collection Date:** | 03/18/2024 8:26 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Chloroethane | **1.1** | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Benzene | **1.3** | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Chlorobenzene | **1.5** | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-1D | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-01 | **Collection Date:** | 03/18/2024 8:26 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| trans-1,4-Dichloro-2-butene | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Surrogate: Dibromofluoromethane | 64.0 | Limit: 75-136 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Surrogate: Dibromofluoromethane | 64.0 | Limit: 80-126 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 59.3 | Limit: 61-142 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 59.3 | Limit: 63-138 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Surrogate: 4-Bromofluorobenzene | 87.5 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1315 | LJS |
| Surrogate: 4-Bromofluorobenzene | 87.5 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1315 | 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 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Barium, total | **0.784** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Cobalt, total | **0.0140** | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Nickel, total | **0.0190** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1338 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-3 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-02 | **Collection Date:** | 03/18/2024 9:27 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-3 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-02 | **Collection Date:** | 03/18/2024 9:27 |

| 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 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Surrogate: Dibromofluoromethane | 69.7 | Limit: 80-126 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Surrogate: Dibromofluoromethane | 69.7 | Limit: 75-136 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 63.3 | Limit: 63-138 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 63.3 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Surrogate: 4-Bromofluorobenzene | 88.1 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1341 | LJS |
| Surrogate: 4-Bromofluorobenzene | 88.1 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1341 | 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 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Barium, total | **0.360** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1415 | RVV |

CERTIFICATE OF ANALYSIS

1HC1337

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-7 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-03 | **Collection Date:** | 03/18/2024 11:44 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-7 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-03 | **Collection Date:** | 03/18/2024 11:44 |

| 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 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Surrogate: Dibromofluoromethane | 70.4 | Limit: 75-136 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Surrogate: Dibromofluoromethane | 70.4 | Limit: 80-126 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 66.8 | Limit: 63-138 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 66.8 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Surrogate: Toluene-d8 | 104 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Surrogate: Toluene-d8 | 104 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Surrogate: 4-Bromofluorobenzene | 88.3 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1408 | LJS |
| Surrogate: 4-Bromofluorobenzene | 88.3 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1408 | 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 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Arsenic, total | **0.0054** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Barium, total | **0.310** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Cobalt, total | **0.0087** | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Nickel, total | **0.0142** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1421 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-10 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-04 | **Collection Date:** | 03/18/2024 12:25 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-10 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-04 | **Collection Date:** | 03/18/2024 12:25 |

| 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 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Surrogate: Dibromofluoromethane | 71.4 | Limit: 75-136 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Surrogate: Dibromofluoromethane | 71.4 | Limit: 80-126 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 67.7 | Limit: 63-138 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 67.7 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Surrogate: Toluene-d8 | 104 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Surrogate: Toluene-d8 | 104 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Surrogate: 4-Bromofluorobenzene | 88.3 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1434 | LJS |
| Surrogate: 4-Bromofluorobenzene | 88.3 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1434 | 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 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Barium, total | **0.465** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |
| Zinc, total | **0.0283** | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1427 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-13 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-05 | **Collection Date:** | 03/18/2024 11:08 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-13 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-05 | **Collection Date:** | 03/18/2024 11:08 |

| 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 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Surrogate: Dibromofluoromethane | 76.7 | Limit: 75-136 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Surrogate: Dibromofluoromethane | 76.7 | Limit: 80-126 | % Rec | 1 | ZZZS-GC | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 72.5 | Limit: 63-138 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 72.5 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Surrogate: Toluene-d8 | 103 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Surrogate: Toluene-d8 | 103 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Surrogate: 4-Bromofluorobenzene | 87.7 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1500 | LJS |
| Surrogate: 4-Bromofluorobenzene | 87.7 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1500 | 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 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Barium, total | **0.0590** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Cadmium, total | **0.0008** | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1433 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-14 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-06 | **Collection Date:** | 03/18/2024 10:51 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-14 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-06 | **Collection Date:** | 03/18/2024 10:51 |

| 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 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Surrogate: Dibromofluoromethane | 74.2 | Limit: 80-126 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Surrogate: Dibromofluoromethane | 74.2 | Limit: 75-136 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 70.2 | Limit: 63-138 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 70.2 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Surrogate: Toluene-d8 | 104 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Surrogate: Toluene-d8 | 104 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Surrogate: 4-Bromofluorobenzene | 86.8 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1527 | LJS |
| Surrogate: 4-Bromofluorobenzene | 86.8 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1527 | 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 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Barium, total | **0.137** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1440 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-16 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-07 | **Collection Date:** | 03/18/2024 10:14 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,1-Dichloroethane | **1.0** | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Benzene | **1.5** | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Chlorobenzene | **5.2** | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-16 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-07 | **Collection Date:** | 03/18/2024 10:14 |

| 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 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,4-Dichlorobenzene | **1.8** | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Surrogate: Dibromofluoromethane | 78.7 | Limit: 75-136 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Surrogate: Dibromofluoromethane | 78.7 | Limit: 80-126 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 76.1 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 76.1 | Limit: 63-138 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Surrogate: 4-Bromofluorobenzene | 89.3 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1553 | LJS |
| Surrogate: 4-Bromofluorobenzene | 89.3 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1553 | 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 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Arsenic, total | **0.0204** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Barium, total | **0.713** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Cobalt, total | **0.0009** | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Nickel, total | **0.0261** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1446 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-17 (b) | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-08 | **Collection Date:** | 03/18/2024 9:08 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-17 (b) | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-08 | **Collection Date:** | 03/18/2024 9:08 |

| 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 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Surrogate: Dibromofluoromethane | 70.5 | Limit: 75-136 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Surrogate: Dibromofluoromethane | 70.5 | Limit: 80-126 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 67.8 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 67.8 | Limit: 63-138 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Surrogate: Toluene-d8 | 106 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Surrogate: Toluene-d8 | 106 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Surrogate: 4-Bromofluorobenzene | 86.9 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1619 | LJS |
| Surrogate: 4-Bromofluorobenzene | 86.9 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1619 | 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 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Barium, total | **0.0964** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Cadmium, total | **0.0008** | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1452 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-18 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-09 | **Collection Date:** | 03/18/2024 9:52 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-18 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-09 | **Collection Date:** | 03/18/2024 9:52 |

| 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 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Surrogate: Dibromofluoromethane | 77.4 | Limit: 75-136 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Surrogate: Dibromofluoromethane | 77.4 | Limit: 80-126 | % Rec | 1 | ZZZS-GC | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 74.0 | Limit: 63-138 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 74.0 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Surrogate: 4-Bromofluorobenzene | 86.9 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1645 | LJS |
| Surrogate: 4-Bromofluorobenzene | 86.9 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1645 | 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 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Arsenic, total | **0.0237** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Barium, total | **0.377** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Cobalt, total | **0.0009** | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Nickel, total | **0.0063** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1510 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-19 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-10 | **Collection Date:** | 03/18/2024 11:27 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,1-Dichloroethane | **2.3** | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| cis-1,2-Dichloroethylene | **1.4** | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-19 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-10 | **Collection Date:** | 03/18/2024 11:27 |

| 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 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Surrogate: Dibromofluoromethane | 71.0 | Limit: 57-134 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Surrogate: Dibromofluoromethane | 71.0 | Limit: 75-136 | % Rec | 1 | **S2** | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 66.7 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 66.7 | Limit: 53-140 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Surrogate: Toluene-d8 | 106 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Surrogate: Toluene-d8 | 106 | Limit: 86-114 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Surrogate: 4-Bromofluorobenzene | 85.5 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1712 | CSM |
| Surrogate: 4-Bromofluorobenzene | 85.5 | Limit: 78-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1712 | 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 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Arsenic, total | **0.0080** | 0.0040 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Barium, total | **0.250** | 0.0040 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Cobalt, total | **0.0013** | 0.0004 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Copper, total | **0.0046** | 0.0040 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Nickel, total | **0.0073** | 0.0040 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | **H** | 01/13/25 1526 | 01/15/25 1851 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-20 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-11 | **Collection Date:** | 03/18/2024 12:07 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Chloroethane | **1.2** | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Benzene | **2.2** | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Chlorobenzene | **1.2** | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-20 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-11 | **Collection Date:** | 03/18/2024 12:07 |

| 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 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Surrogate: Dibromofluoromethane | 79.0 | Limit: 75-136 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Surrogate: Dibromofluoromethane | 79.0 | Limit: 80-126 | % Rec | 1 | ZZZS-GC | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 76.1 | Limit: 63-138 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 76.1 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Surrogate: Toluene-d8 | 103 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Surrogate: Toluene-d8 | 103 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Surrogate: 4-Bromofluorobenzene | 86.1 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1738 | LJS |
| Surrogate: 4-Bromofluorobenzene | 86.1 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1738 | 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 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Arsenic, total | **0.112** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Barium, total | **2.11** | 0.100 | mg/L | 100 | | 03/21/24 0917 | 03/25/24 1229 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Cobalt, total | **0.0097** | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Nickel, total | **0.0314** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1516 | RVV |

CERTIFICATE OF ANALYSIS

1HC1337

| | | | |
|---|---|---|---|
| **Client Sample ID:** | GWD-1 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-12 | **Collection Date:** | 03/18/2024 10:34 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | GWD-1 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-12 | **Collection Date:** | 03/18/2024 10:34 |

| 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 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Surrogate: Dibromofluoromethane | 75.4 | Limit: 75-136 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Surrogate: Dibromofluoromethane | 75.4 | Limit: 80-126 | % Rec | 1 | ZZZS-GC | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 72.3 | Limit: 63-138 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 72.3 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Surrogate: 4-Bromofluorobenzene | 85.7 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1804 | LJS |
| Surrogate: 4-Bromofluorobenzene | 85.7 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1804 | 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 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Barium, total | **0.262** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1523 | RVV |

CERTIFICATE OF ANALYSIS

1HC1337

| | | | |
|---|---|---|---|
| **Client Sample ID:** | Duplicate | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-13 | **Collection Date:** | 03/18/2024 9:52 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | Duplicate | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-13 | **Collection Date:** | 03/18/2024 9:52 |

| 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 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Surrogate: Dibromofluoromethane | 75.6 | Limit: 80-126 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Surrogate: Dibromofluoromethane | 75.6 | Limit: 75-136 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 71.6 | Limit: 63-138 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 71.6 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Surrogate: 4-Bromofluorobenzene | 85.9 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1831 | LJS |
| Surrogate: 4-Bromofluorobenzene | 85.9 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1831 | 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 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Arsenic, total | **0.0237** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Barium, total | **0.390** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Cobalt, total | **0.0009** | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Nickel, total | **0.0052** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1529 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-44 (b) | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-14 | **Collection Date:** | 03/18/2024 8:47 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-44 (b) | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1337-14 | **Collection Date:** | 03/18/2024 8:47 |

| 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 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Surrogate: Dibromofluoromethane | 73.2 | Limit: 80-126 | % Rec | 1 | **ZZZS-GC** | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Surrogate: Dibromofluoromethane | 73.2 | Limit: 75-136 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 70.2 | Limit: 61-142 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Surrogate: 1,2-Dichloroethane-d4 | 70.2 | Limit: 63-138 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 87-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Surrogate: Toluene-d8 | 105 | Limit: 82-121 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Surrogate: 4-Bromofluorobenzene | 85.7 | Limit: 85-111 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1857 | LJS |
| Surrogate: 4-Bromofluorobenzene | 85.7 | Limit: 80-116 | % Rec | 1 | | 03/21/24 0000 | 03/21/24 1857 | 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 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Barium, total | **0.154** | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/21/24 0917 | 03/22/24 1535 | RVV |

**Batch Log Summary**

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 6020A | 1HC1176 | 1HC1176-BLK1 | |
| | | 1HC1176-BS1 | |
| | | 1HC1337-01 | MW-1D |
| | | 1HC1176-MS1 | 1HC1337-01 |
| | | 1HC1176-MSD1 | 1HC1337-01 |
| | | 1HC1176-PS1 | 1HC1337-01 |
| | | 1HC1337-02 | MW-3 |
| | | 1HC1337-03 | MW-7 |
| | | 1HC1337-04 | MW-10 |
| | | 1HC1337-05 | MW-13 |
| | | 1HC1337-06 | MW-14 |
| | | 1HC1337-07 | MW-16 |
| | | 1HC1337-08 | MW-17 (b) |
| | | 1HC1337-09 | MW-18 |
| | | 1HC1337-11 | MW-20 |
| | | 1HC1337-12 | GWD-1 |
| | | 1HC1337-13 | Duplicate |
| | | 1HC1337-14 | MW-44 (b) |
| | | 1HC1337-11RE1 | MW-20 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 8260D | 1HC1242 | 1HC1242-BS1 | |
| | | 1HC1242-BSD1 | |
| | | 1HC1242-BLK1 | |
| | | 1HC1337-01 | MW-1D |
| | | 1HC1337-02 | MW-3 |
| | | 1HC1337-03 | MW-7 |
| | | 1HC1337-04 | MW-10 |
| | | 1HC1337-05 | MW-13 |
| | | 1HC1337-06 | MW-14 |
| | | 1HC1337-07 | MW-16 |
| | | 1HC1337-08 | MW-17 (b) |
| | | 1HC1337-09 | MW-18 |
| | | 1HC1337-10 | MW-19 |
| | | 1HC1337-11 | MW-20 |
| | | 1HC1337-12 | GWD-1 |
| | | 1HC1337-13 | Duplicate |
| | | 1HC1337-14 | MW-44 (b) |
| | | 1HC1242-BS2 | |
| | | 1HC1242-BSD2 | |

| | | | |
|---|---|---|---|
| EPA 8260D | 1HC1242 | 1HC1242-BLK2 | |
| | | 1HC1242-MS1 | 1HC1337-04 |
| | | 1HC1242-MSD1 | 1HC1337-04 |
| | | 1HC1242-MS2 | 1HC1336-11 |
| | | 1HC1242-MSD2 | 1HC1336-11 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 6020A | 1IA0549 | 1IA0549-BLK1 | |
| | | 1IA0549-BS1 | |
| | | 1HC1337-10 | MW-19 |
| | | 1IA0549-MS1 | 1IA0501-01 |
| | | 1IA0549-MSD1 | 1IA0501-01 |
| | | 1IA0549-PS1 | 1IA0501-01 |

**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 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Blank (1HC1242-BLK1)** | | | Prepared: 03/21/24 00:00 Analyzed: 03/21/24 11:20 | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromomethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Chloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| Acetone | <10.0 | 10.0 | ug/L | | | | | | | |
| Methyl Iodide | <1.0 | 1.0 | ug/L | | | | | | | |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | | | | | | | |
| Methylene Chloride | <5.0 | 5.0 | ug/L | | | | | | | |
| Acrylonitrile | <5.0 | 5.0 | ug/L | | | | | | | |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | | | | | | | |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | | | | | | | |
| Bromochloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Chloroform | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | | | | | | | |
| Benzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Trichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | | | | | | | |
| Dibromomethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | | | | | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Blank (1HC1242-BLK1)** | | | Prepared: 03/21/24 00:00 Analyzed: 03/21/24 11:20 | | | | | | | |
| 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* | *34.1* | | ug/L | *50.2* | | *68.0* | *80-126* | | | *ZZZS-GC* |
| *Surrogate: Dibromofluoromethane* | *34.1* | | ug/L | *50.2* | | *68.0* | *75-136* | | | *ZZZS-GC* |
| *Surrogate: 1,2-Dichloroethane-d4* | *31.6* | | ug/L | *50.1* | | *63.1* | *63-138* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *31.6* | | ug/L | *50.1* | | *63.1* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *53.6* | | ug/L | *50.4* | | *106* | *87-116* | | | |
| *Surrogate: Toluene-d8* | *53.6* | | ug/L | *50.4* | | *106* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *46.5* | | ug/L | *50.1* | | *92.8* | *85-111* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *46.5* | | ug/L | *50.1* | | *92.8* | *80-116* | | | |
| **Blank (1HC1242-BLK2)** | | | Prepared: 03/21/24 00:00 Analyzed: 03/22/24 00:13 | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromomethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Chloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| Acetone | <10.0 | 10.0 | ug/L | | | | | | | |
| Methyl Iodide | <1.0 | 1.0 | ug/L | | | | | | | |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | | | | | | | |
| Methylene Chloride | <5.0 | 5.0 | ug/L | | | | | | | |
| Acrylonitrile | <5.0 | 5.0 | ug/L | | | | | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Blank (1HC1242-BLK2)** | | | Prepared: 03/21/24 00:00 Analyzed: 03/22/24 00:13 | | | | | | | |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | | | | | | | |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | | | | | | | |
| Bromochloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Chloroform | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | | | | | | | |
| Benzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Trichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | | | | | | | |
| Dibromomethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | | | | | | | |
| Toluene | <1.0 | 1.0 | ug/L | | | | | | | |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | | | | | | | |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Chlorobenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Ethylbenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| Xylenes, total | <2.0 | 2.0 | ug/L | | | | | | | |
| Styrene | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromoform | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | | | | | | | |
| trans-1,4-Dichloro-2-butene | <5.0 | 5.0 | ug/L | | | | | | | |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *37.2* | | ug/L | *50.2* | | *74.2* | *80-126* | | | *ZZZS-GC* |
| *Surrogate: Dibromofluoromethane* | *37.2* | | ug/L | *50.2* | | *74.2* | *75-136* | | | *ZZZS-GC* |
| *Surrogate: 1,2-Dichloroethane-d4* | *35.8* | | ug/L | *50.1* | | *71.6* | *63-138* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *35.8* | | ug/L | *50.1* | | *71.6* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *51.2* | | ug/L | *50.4* | | *102* | *87-116* | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Blank (1HC1242-BLK2)** | | | Prepared: 03/21/24 00:00 Analyzed: 03/22/24 00:13 | | | | | | | |
| *Surrogate: Toluene-d8* | *51.2* | | ug/L | *50.4* | | *102* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *43.8* | | ug/L | *50.1* | | *87.2* | *85-111* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *43.8* | | ug/L | *50.1* | | *87.2* | *80-116* | | | |
| **LCS (1HC1242-BS1)** | | | Prepared: 03/21/24 00:00 Analyzed: 03/21/24 10:01 | | | | | | | |
| Chloromethane | 31.57 | 1.0 | ug/L | 30.6 | | 103 | 63-155 | | | |
| Vinyl Chloride | 28.37 | 1.0 | ug/L | 30.2 | | 93.9 | 70-154 | | | |
| Bromomethane | 29.77 | 1.0 | ug/L | 28.8 | | 103 | 52-176 | | | |
| Chloroethane | 32.42 | 1.0 | ug/L | 31.6 | | 102 | 72-148 | | | |
| Trichlorofluoromethane | 28.32 | 1.0 | ug/L | 32.6 | | 86.8 | 70-152 | | | |
| 1,1-Dichloroethylene | 49.29 | 1.0 | ug/L | 50.0 | | 98.6 | 70-148 | | | |
| Acetone | 90.76 | 10.0 | ug/L | 102 | | 89.0 | 43-172 | | | |
| Methyl Iodide | 103.2 | 1.0 | ug/L | 99.7 | | 103 | 69-170 | | | |
| Carbon Disulfide | 93.18 | 1.0 | ug/L | 101 | | 92.3 | 72-162 | | | |
| Methylene Chloride | 47.29 | 5.0 | ug/L | 50.0 | | 94.6 | 68-142 | | | |
| Acrylonitrile | 78.86 | 5.0 | ug/L | 100 | | 78.6 | 67-144 | | | |
| trans-1,2-Dichloroethylene | 49.30 | 1.0 | ug/L | 50.0 | | 98.6 | 66-148 | | | |
| 1,1-Dichloroethane | 48.34 | 1.0 | ug/L | 50.0 | | 96.7 | 66-143 | | | |
| Vinyl Acetate | 100.6 | 5.0 | ug/L | 102 | | 98.8 | 43-153 | | | |
| cis-1,2-Dichloroethylene | 48.49 | 1.0 | ug/L | 49.5 | | 98.0 | 71-149 | | | |
| 2-Butanone (MEK) | 82.75 | 10.0 | ug/L | 103 | | 80.1 | 52-159 | | | |
| Bromochloromethane | 50.24 | 1.0 | ug/L | 50.0 | | 100 | 69-143 | | | |
| Chloroform | 48.07 | 1.0 | ug/L | 50.0 | | 96.1 | 69-144 | | | |
| 1,1,1-Trichloroethane | 43.50 | 1.0 | ug/L | 50.0 | | 87.0 | 62-129 | | | |
| Carbon Tetrachloride | 46.38 | 1.0 | ug/L | 50.0 | | 92.8 | 63-141 | | | |
| Benzene | 52.54 | 1.0 | ug/L | 50.0 | | 105 | 71-134 | | | |
| 1,2-Dichloroethane | 49.13 | 1.0 | ug/L | 50.0 | | 98.3 | 72-132 | | | |
| Trichloroethylene | 49.19 | 1.0 | ug/L | 50.0 | | 98.4 | 71-135 | | | |
| 1,2-Dichloropropane | 50.38 | 1.0 | ug/L | 50.0 | | 101 | 69-136 | | | |
| Dibromomethane | 51.47 | 1.0 | ug/L | 50.0 | | 103 | 73-147 | | | |
| Bromodichloromethane | 47.84 | 1.0 | ug/L | 50.0 | | 95.7 | 68-129 | | | |
| cis-1,3-Dichloropropene | 47.50 | 1.0 | ug/L | 50.3 | | 94.4 | 65-134 | | | |
| 4-Methyl-2-pentanone (MIBK) | 94.61 | 5.0 | ug/L | 101 | | 93.3 | 58-147 | | | |
| Toluene | 51.33 | 1.0 | ug/L | 50.0 | | 103 | 72-133 | | | |
| trans-1,3-Dichloropropene | 46.33 | 1.0 | ug/L | 50.4 | | 91.9 | 67-130 | | | |
| 1,1,2-Trichloroethane | 49.24 | 1.0 | ug/L | 50.0 | | 98.5 | 69-135 | | | |
| Tetrachloroethylene | 49.78 | 1.0 | ug/L | 50.0 | | 99.6 | 69-130 | | | |
| 2-Hexanone (MBK) | 94.69 | 5.0 | ug/L | 103 | | 91.7 | 55-144 | | | |
| Dibromochloromethane | 49.54 | 1.0 | ug/L | 49.5 | | 100 | 73-127 | | | |
| 1,2-Dibromoethane | 48.63 | 1.0 | ug/L | 50.0 | | 97.3 | 67-132 | | | |
| Chlorobenzene | 51.85 | 1.0 | ug/L | 50.0 | | 104 | 72-123 | | | |
| 1,1,1,2-Tetrachloroethane | 51.16 | 1.0 | ug/L | 50.0 | | 102 | 73-127 | | | |
| Ethylbenzene | 49.11 | 1.0 | ug/L | 50.0 | | 98.2 | 71-127 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **LCS (1HC1242-BS1)** | | | Prepared: 03/21/24 00:00 Analyzed: 03/21/24 10:01 | | | | | | | |
| Xylenes, total | 150.4 | 2.0 | ug/L | 150 | | 100 | 74-127 | | | |
| Styrene | 50.05 | 1.0 | ug/L | 50.0 | | 100 | 66-126 | | | |
| Bromoform | 54.03 | 1.0 | ug/L | 50.0 | | 108 | 68-130 | | | |
| 1,2,3-Trichloropropane | 50.13 | 1.0 | ug/L | 50.0 | | 100 | 63-136 | | | |
| trans-1,4-Dichloro-2-butene | 92.01 | 5.0 | ug/L | 104 | | 88.6 | 54-134 | | | |
| 1,1,2,2-Tetrachloroethane | 47.49 | 1.0 | ug/L | 49.8 | | 95.3 | 61-131 | | | |
| 1,4-Dichlorobenzene | 48.71 | 1.0 | ug/L | 50.0 | | 97.4 | 70-129 | | | |
| 1,2-Dichlorobenzene | 48.83 | 1.0 | ug/L | 50.0 | | 97.7 | 69-126 | | | |
| 1,2-Dibromo-3-chloropropane | 47.30 | 5.0 | ug/L | 50.0 | | 94.6 | 50-143 | | | |
| *Surrogate: Dibromofluoromethane* | *50.7* | | ug/L | *50.2* | | *101* | *80-126* | | | |
| *Surrogate: Dibromofluoromethane* | *50.7* | | ug/L | *50.2* | | *101* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *50.9* | | ug/L | *50.1* | | *102* | *63-138* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *50.9* | | ug/L | *50.1* | | *102* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *50.9* | | ug/L | *50.4* | | *101* | *87-116* | | | |
| *Surrogate: Toluene-d8* | *50.9* | | ug/L | *50.4* | | *101* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *53.2* | | ug/L | *50.1* | | *106* | *85-111* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *53.2* | | ug/L | *50.1* | | *106* | *80-116* | | | |
| **LCS (1HC1242-BS2)** | | | Prepared: 03/21/24 00:00 Analyzed: 03/21/24 22:54 | | | | | | | |
| Chloromethane | 30.12 | 1.0 | ug/L | 30.6 | | 98.3 | 63-155 | | | |
| Vinyl Chloride | 27.67 | 1.0 | ug/L | 30.2 | | 91.5 | 70-154 | | | |
| Bromomethane | 27.16 | 1.0 | ug/L | 28.8 | | 94.3 | 52-176 | | | |
| Chloroethane | 31.15 | 1.0 | ug/L | 31.6 | | 98.5 | 72-148 | | | |
| Trichlorofluoromethane | 26.82 | 1.0 | ug/L | 32.6 | | 82.2 | 70-152 | | | |
| 1,1-Dichloroethylene | 46.33 | 1.0 | ug/L | 50.0 | | 92.7 | 70-148 | | | |
| Acetone | 91.23 | 10.0 | ug/L | 102 | | 89.4 | 43-172 | | | |
| Methyl Iodide | 100.5 | 1.0 | ug/L | 99.7 | | 101 | 69-170 | | | |
| Carbon Disulfide | 89.11 | 1.0 | ug/L | 101 | | 88.2 | 72-162 | | | |
| Methylene Chloride | 43.02 | 5.0 | ug/L | 50.0 | | 86.0 | 68-142 | | | |
| Acrylonitrile | 71.61 | 5.0 | ug/L | 100 | | 71.4 | 67-144 | | | |
| trans-1,2-Dichloroethylene | 46.84 | 1.0 | ug/L | 50.0 | | 93.7 | 66-148 | | | |
| 1,1-Dichloroethane | 45.56 | 1.0 | ug/L | 50.0 | | 91.1 | 66-143 | | | |
| Vinyl Acetate | 51.16 | 5.0 | ug/L | 102 | | 50.2 | 43-153 | | | |
| cis-1,2-Dichloroethylene | 44.34 | 1.0 | ug/L | 49.5 | | 89.6 | 71-149 | | | |
| 2-Butanone (MEK) | 90.44 | 10.0 | ug/L | 103 | | 87.6 | 52-159 | | | |
| Bromochloromethane | 44.80 | 1.0 | ug/L | 50.0 | | 89.6 | 69-143 | | | |
| Chloroform | 45.76 | 1.0 | ug/L | 50.0 | | 91.5 | 69-144 | | | |
| 1,1,1-Trichloroethane | 42.73 | 1.0 | ug/L | 50.0 | | 85.5 | 62-129 | | | |
| Carbon Tetrachloride | 45.78 | 1.0 | ug/L | 50.0 | | 91.6 | 63-141 | | | |
| Benzene | 51.70 | 1.0 | ug/L | 50.0 | | 103 | 71-134 | | | |
| 1,2-Dichloroethane | 45.63 | 1.0 | ug/L | 50.0 | | 91.3 | 72-132 | | | |
| Trichloroethylene | 53.83 | 1.0 | ug/L | 50.0 | | 108 | 71-135 | | | |
| 1,2-Dichloropropane | 47.90 | 1.0 | ug/L | 50.0 | | 95.8 | 69-136 | | | |
| Dibromomethane | 47.15 | 1.0 | ug/L | 50.0 | | 94.3 | 73-147 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **LCS (1HC1242-BS2)** | | | | Prepared: 03/21/24 00:00 Analyzed: 03/21/24 22:54 | | | | | | |
| Bromodichloromethane | 44.96 | 1.0 | ug/L | 50.0 | | 89.9 | 68-129 | | | |
| cis-1,3-Dichloropropene | 42.75 | 1.0 | ug/L | 50.3 | | 84.9 | 65-134 | | | |
| 4-Methyl-2-pentanone (MIBK) | 85.43 | 5.0 | ug/L | 101 | | 84.3 | 58-147 | | | |
| Toluene | 50.06 | 1.0 | ug/L | 50.0 | | 100 | 72-133 | | | |
| trans-1,3-Dichloropropene | 40.81 | 1.0 | ug/L | 50.4 | | 80.9 | 67-130 | | | |
| 1,1,2-Trichloroethane | 45.63 | 1.0 | ug/L | 50.0 | | 91.3 | 69-135 | | | |
| Tetrachloroethylene | 51.22 | 1.0 | ug/L | 50.0 | | 102 | 69-130 | | | |
| 2-Hexanone (MBK) | 96.01 | 5.0 | ug/L | 103 | | 92.9 | 55-144 | | | |
| Dibromochloromethane | 46.69 | 1.0 | ug/L | 49.5 | | 94.3 | 73-127 | | | |
| 1,2-Dibromoethane | 45.42 | 1.0 | ug/L | 50.0 | | 90.8 | 67-132 | | | |
| Chlorobenzene | 50.58 | 1.0 | ug/L | 50.0 | | 101 | 72-123 | | | |
| 1,1,1,2-Tetrachloroethane | 50.62 | 1.0 | ug/L | 50.0 | | 101 | 73-127 | | | |
| Ethylbenzene | 48.60 | 1.0 | ug/L | 50.0 | | 97.2 | 71-127 | | | |
| Xylenes, total | 147.2 | 2.0 | ug/L | 150 | | 98.1 | 74-127 | | | |
| Styrene | 47.94 | 1.0 | ug/L | 50.0 | | 95.9 | 66-126 | | | |
| Bromoform | 49.08 | 1.0 | ug/L | 50.0 | | 98.2 | 68-130 | | | |
| 1,2,3-Trichloropropane | 45.88 | 1.0 | ug/L | 50.0 | | 91.8 | 63-136 | | | |
| trans-1,4-Dichloro-2-butene | 76.35 | 5.0 | ug/L | 104 | | 73.5 | 54-134 | | | |
| 1,1,2,2-Tetrachloroethane | 38.64 | 1.0 | ug/L | 49.8 | | 77.5 | 61-131 | | | |
| 1,4-Dichlorobenzene | 45.37 | 1.0 | ug/L | 50.0 | | 90.7 | 70-129 | | | |
| 1,2-Dichlorobenzene | 45.26 | 1.0 | ug/L | 50.0 | | 90.5 | 69-126 | | | |
| 1,2-Dibromo-3-chloropropane | 40.62 | 5.0 | ug/L | 50.0 | | 81.2 | 50-143 | | | |
| *Surrogate: Dibromofluoromethane* | *48.7* | | ug/L | *50.2* | | *97.0* | *80-126* | | | |
| *Surrogate: Dibromofluoromethane* | *48.7* | | ug/L | *50.2* | | *97.0* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *48.6* | | ug/L | *50.1* | | *97.0* | *63-138* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *48.6* | | ug/L | *50.1* | | *97.0* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *50.7* | | ug/L | *50.4* | | *101* | *87-116* | | | |
| *Surrogate: Toluene-d8* | *50.7* | | ug/L | *50.4* | | *101* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *51.8* | | ug/L | *50.1* | | *103* | *85-111* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *51.8* | | ug/L | *50.1* | | *103* | *80-116* | | | |
| **LCS Dup (1HC1242-BSD1)** | | | | Prepared: 03/21/24 00:00 Analyzed: 03/21/24 10:27 | | | | | | |
| Chloromethane | 28.57 | 1.0 | ug/L | 30.6 | | 93.2 | 63-155 | 9.98 | 24 | |
| Vinyl Chloride | 25.33 | 1.0 | ug/L | 30.2 | | 83.8 | 70-154 | 11.3 | 25 | |
| Bromomethane | 27.71 | 1.0 | ug/L | 28.8 | | 96.2 | 52-176 | 7.17 | 27 | |
| Chloroethane | 29.65 | 1.0 | ug/L | 31.6 | | 93.7 | 72-148 | 8.93 | 25 | |
| Trichlorofluoromethane | 25.91 | 1.0 | ug/L | 32.6 | | 79.5 | 70-152 | 8.89 | 26 | |
| 1,1-Dichloroethylene | 45.45 | 1.0 | ug/L | 50.0 | | 90.9 | 70-148 | 8.11 | 24 | |
| Acetone | 87.47 | 10.0 | ug/L | 102 | | 85.8 | 43-172 | 3.69 | 30 | |
| Methyl Iodide | 93.25 | 1.0 | ug/L | 99.7 | | 93.5 | 69-170 | 10.1 | 30 | |
| Carbon Disulfide | 84.52 | 1.0 | ug/L | 101 | | 83.7 | 72-162 | 9.75 | 24 | |
| Methylene Chloride | 43.72 | 5.0 | ug/L | 50.0 | | 87.4 | 68-142 | 7.85 | 21 | |
| Acrylonitrile | 74.90 | 5.0 | ug/L | 100 | | 74.6 | 67-144 | 5.15 | 24 | |
| trans-1,2-Dichloroethylene | 45.35 | 1.0 | ug/L | 50.0 | | 90.7 | 66-148 | 8.35 | 27 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **LCS Dup (1HC1242-BSD1)** | | | Prepared: 03/21/24 00:00 Analyzed: 03/21/24 10:27 | | | | | | | |
| 1,1-Dichloroethane | 44.74 | 1.0 | ug/L | 50.0 | | 89.5 | 66-143 | 7.74 | 24 | |
| Vinyl Acetate | 104.4 | 5.0 | ug/L | 102 | | 102 | 43-153 | 3.71 | 30 | |
| cis-1,2-Dichloroethylene | 45.33 | 1.0 | ug/L | 49.5 | | 91.6 | 71-149 | 6.74 | 26 | |
| 2-Butanone (MEK) | 97.78 | 10.0 | ug/L | 103 | | 94.7 | 52-159 | 16.7 | 27 | |
| Bromochloromethane | 47.32 | 1.0 | ug/L | 50.0 | | 94.6 | 69-143 | 5.99 | 23 | |
| Chloroform | 44.79 | 1.0 | ug/L | 50.0 | | 89.6 | 69-144 | 7.06 | 23 | |
| 1,1,1-Trichloroethane | 40.00 | 1.0 | ug/L | 50.0 | | 80.0 | 62-129 | 8.38 | 24 | |
| Carbon Tetrachloride | 42.70 | 1.0 | ug/L | 50.0 | | 85.4 | 63-141 | 8.26 | 25 | |
| Benzene | 48.42 | 1.0 | ug/L | 50.0 | | 96.8 | 71-134 | 8.16 | 24 | |
| 1,2-Dichloroethane | 45.95 | 1.0 | ug/L | 50.0 | | 91.9 | 72-132 | 6.69 | 24 | |
| Trichloroethylene | 45.28 | 1.0 | ug/L | 50.0 | | 90.6 | 71-135 | 8.28 | 24 | |
| 1,2-Dichloropropane | 46.72 | 1.0 | ug/L | 50.0 | | 93.4 | 69-136 | 7.54 | 24 | |
| Dibromomethane | 48.39 | 1.0 | ug/L | 50.0 | | 96.8 | 73-147 | 6.17 | 25 | |
| Bromodichloromethane | 44.43 | 1.0 | ug/L | 50.0 | | 88.9 | 68-129 | 7.39 | 22 | |
| cis-1,3-Dichloropropene | 44.62 | 1.0 | ug/L | 50.3 | | 88.7 | 65-134 | 6.25 | 23 | |
| 4-Methyl-2-pentanone (MIBK) | 90.41 | 5.0 | ug/L | 101 | | 89.2 | 58-147 | 4.54 | 27 | |
| Toluene | 47.52 | 1.0 | ug/L | 50.0 | | 95.0 | 72-133 | 7.71 | 24 | |
| trans-1,3-Dichloropropene | 43.91 | 1.0 | ug/L | 50.4 | | 87.1 | 67-130 | 5.36 | 24 | |
| 1,1,2-Trichloroethane | 45.91 | 1.0 | ug/L | 50.0 | | 91.8 | 69-135 | 7.00 | 23 | |
| Tetrachloroethylene | 45.90 | 1.0 | ug/L | 50.0 | | 91.8 | 69-130 | 8.11 | 25 | |
| 2-Hexanone (MBK) | 90.61 | 5.0 | ug/L | 103 | | 87.7 | 55-144 | 4.40 | 25 | |
| Dibromochloromethane | 45.79 | 1.0 | ug/L | 49.5 | | 92.5 | 73-127 | 7.87 | 22 | |
| 1,2-Dibromoethane | 44.92 | 1.0 | ug/L | 50.0 | | 89.8 | 67-132 | 7.93 | 24 | |
| Chlorobenzene | 48.12 | 1.0 | ug/L | 50.0 | | 96.2 | 72-123 | 7.46 | 23 | |
| 1,1,1,2-Tetrachloroethane | 47.77 | 1.0 | ug/L | 50.0 | | 95.5 | 73-127 | 6.85 | 24 | |
| Ethylbenzene | 45.52 | 1.0 | ug/L | 50.0 | | 91.0 | 71-127 | 7.59 | 26 | |
| Xylenes, total | 139.6 | 2.0 | ug/L | 150 | | 93.1 | 74-127 | 7.46 | 25 | |
| Styrene | 46.28 | 1.0 | ug/L | 50.0 | | 92.6 | 66-126 | 7.83 | 23 | |
| Bromoform | 50.06 | 1.0 | ug/L | 50.0 | | 100 | 68-130 | 7.63 | 23 | |
| 1,2,3-Trichloropropane | 46.72 | 1.0 | ug/L | 50.0 | | 93.4 | 63-136 | 7.04 | 24 | |
| trans-1,4-Dichloro-2-butene | 86.26 | 5.0 | ug/L | 104 | | 83.0 | 54-134 | 6.45 | 27 | |
| 1,1,2,2-Tetrachloroethane | 45.12 | 1.0 | ug/L | 49.8 | | 90.5 | 61-131 | 5.12 | 29 | |
| 1,4-Dichlorobenzene | 45.26 | 1.0 | ug/L | 50.0 | | 90.5 | 70-129 | 7.34 | 24 | |
| 1,2-Dichlorobenzene | 45.92 | 1.0 | ug/L | 50.0 | | 91.8 | 69-126 | 6.14 | 26 | |
| 1,2-Dibromo-3-chloropropane | 44.14 | 5.0 | ug/L | 50.0 | | 88.3 | 50-143 | 6.91 | 30 | |
| *Surrogate: Dibromofluoromethane* | *50.0* | | ug/L | *50.2* | | *99.6* | *80-126* | | | |
| *Surrogate: Dibromofluoromethane* | *50.0* | | ug/L | *50.2* | | *99.6* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *50.0* | | ug/L | *50.1* | | *99.9* | *63-138* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *50.0* | | ug/L | *50.1* | | *99.9* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *50.7* | | ug/L | *50.4* | | *101* | *87-116* | | | |
| *Surrogate: Toluene-d8* | *50.7* | | ug/L | *50.4* | | *101* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *52.6* | | ug/L | *50.1* | | *105* | *85-111* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *52.6* | | ug/L | *50.1* | | *105* | *80-116* | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **LCS Dup (1HC1242-BSD2)** | | | | Prepared: 03/21/24 00:00 Analyzed: 03/21/24 23:20 | | | | | | |
| Chloromethane | 27.98 | 1.0 | ug/L | 30.6 | | 91.3 | 63-155 | 7.37 | 24 | |
| Vinyl Chloride | 25.58 | 1.0 | ug/L | 30.2 | | 84.6 | 70-154 | 7.85 | 25 | |
| Bromomethane | 26.07 | 1.0 | ug/L | 28.8 | | 90.5 | 52-176 | 4.10 | 27 | |
| Chloroethane | 29.26 | 1.0 | ug/L | 31.6 | | 92.5 | 72-148 | 6.26 | 25 | |
| Trichlorofluoromethane | 24.56 | 1.0 | ug/L | 32.6 | | 75.3 | 70-152 | 8.80 | 26 | |
| 1,1-Dichloroethylene | 43.80 | 1.0 | ug/L | 50.0 | | 87.6 | 70-148 | 5.61 | 24 | |
| Acetone | 87.31 | 10.0 | ug/L | 102 | | 85.6 | 43-172 | 4.39 | 30 | |
| Methyl Iodide | 95.32 | 1.0 | ug/L | 99.7 | | 95.6 | 69-170 | 5.29 | 30 | |
| Carbon Disulfide | 83.20 | 1.0 | ug/L | 101 | | 82.4 | 72-162 | 6.86 | 24 | |
| Methylene Chloride | 41.81 | 5.0 | ug/L | 50.0 | | 83.6 | 68-142 | 2.85 | 21 | |
| Acrylonitrile | 72.43 | 5.0 | ug/L | 100 | | 72.2 | 67-144 | 1.14 | 24 | |
| trans-1,2-Dichloroethylene | 44.58 | 1.0 | ug/L | 50.0 | | 89.2 | 66-148 | 4.94 | 27 | |
| 1,1-Dichloroethane | 43.81 | 1.0 | ug/L | 50.0 | | 87.6 | 66-143 | 3.92 | 24 | |
| Vinyl Acetate | 50.25 | 5.0 | ug/L | 102 | | 49.3 | 43-153 | 1.79 | 30 | |
| cis-1,2-Dichloroethylene | 42.67 | 1.0 | ug/L | 49.5 | | 86.2 | 71-149 | 3.84 | 26 | |
| 2-Butanone (MEK) | 91.28 | 10.0 | ug/L | 103 | | 88.4 | 52-159 | 0.924 | 27 | |
| Bromochloromethane | 43.92 | 1.0 | ug/L | 50.0 | | 87.8 | 69-143 | 1.98 | 23 | |
| Chloroform | 43.68 | 1.0 | ug/L | 50.0 | | 87.4 | 69-144 | 4.65 | 23 | |
| 1,1,1-Trichloroethane | 40.28 | 1.0 | ug/L | 50.0 | | 80.6 | 62-129 | 5.90 | 24 | |
| Carbon Tetrachloride | 42.85 | 1.0 | ug/L | 50.0 | | 85.7 | 63-141 | 6.61 | 25 | |
| Benzene | 49.15 | 1.0 | ug/L | 50.0 | | 98.3 | 71-134 | 5.06 | 24 | |
| 1,2-Dichloroethane | 43.53 | 1.0 | ug/L | 50.0 | | 87.1 | 72-132 | 4.71 | 24 | |
| Trichloroethylene | 50.49 | 1.0 | ug/L | 50.0 | | 101 | 71-135 | 6.40 | 24 | |
| 1,2-Dichloropropane | 46.12 | 1.0 | ug/L | 50.0 | | 92.2 | 69-136 | 3.79 | 24 | |
| Dibromomethane | 45.98 | 1.0 | ug/L | 50.0 | | 92.0 | 73-147 | 2.51 | 25 | |
| Bromodichloromethane | 43.26 | 1.0 | ug/L | 50.0 | | 86.5 | 68-129 | 3.85 | 22 | |
| cis-1,3-Dichloropropene | 41.37 | 1.0 | ug/L | 50.3 | | 82.2 | 65-134 | 3.28 | 23 | |
| 4-Methyl-2-pentanone (MIBK) | 84.20 | 5.0 | ug/L | 101 | | 83.0 | 58-147 | 1.45 | 27 | |
| Toluene | 47.54 | 1.0 | ug/L | 50.0 | | 95.1 | 72-133 | 5.16 | 24 | |
| trans-1,3-Dichloropropene | 40.06 | 1.0 | ug/L | 50.4 | | 79.4 | 67-130 | 1.85 | 24 | |
| 1,1,2-Trichloroethane | 44.18 | 1.0 | ug/L | 50.0 | | 88.4 | 69-135 | 3.23 | 23 | |
| Tetrachloroethylene | 48.69 | 1.0 | ug/L | 50.0 | | 97.4 | 69-130 | 5.06 | 25 | |
| 2-Hexanone (MBK) | 95.02 | 5.0 | ug/L | 103 | | 92.0 | 55-144 | 1.04 | 25 | |
| Dibromochloromethane | 45.20 | 1.0 | ug/L | 49.5 | | 91.3 | 73-127 | 3.24 | 22 | |
| 1,2-Dibromoethane | 44.48 | 1.0 | ug/L | 50.0 | | 89.0 | 67-132 | 2.09 | 24 | |
| Chlorobenzene | 48.36 | 1.0 | ug/L | 50.0 | | 96.7 | 72-123 | 4.49 | 23 | |
| 1,1,1,2-Tetrachloroethane | 48.74 | 1.0 | ug/L | 50.0 | | 97.5 | 73-127 | 3.78 | 24 | |
| Ethylbenzene | 46.34 | 1.0 | ug/L | 50.0 | | 92.7 | 71-127 | 4.76 | 26 | |
| Xylenes, total | 141.0 | 2.0 | ug/L | 150 | | 94.0 | 74-127 | 4.28 | 25 | |
| Styrene | 45.88 | 1.0 | ug/L | 50.0 | | 91.8 | 66-126 | 4.39 | 23 | |
| Bromoform | 48.13 | 1.0 | ug/L | 50.0 | | 96.3 | 68-130 | 1.95 | 23 | |
| 1,2,3-Trichloropropane | 45.09 | 1.0 | ug/L | 50.0 | | 90.2 | 63-136 | 1.74 | 24 | |
| trans-1,4-Dichloro-2-butene | 74.68 | 5.0 | ug/L | 104 | | 71.9 | 54-134 | 2.21 | 27 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **LCS Dup (1HC1242-BSD2)** | | | | Prepared: 03/21/24 00:00 Analyzed: 03/21/24 23:20 | | | | | | |
| 1,1,2,2-Tetrachloroethane | 39.59 | 1.0 | ug/L | 49.8 | | 79.4 | 61-131 | 2.43 | 29 | |
| 1,4-Dichlorobenzene | 45.14 | 1.0 | ug/L | 50.0 | | 90.3 | 70-129 | 0.508 | 24 | |
| 1,2-Dichlorobenzene | 44.92 | 1.0 | ug/L | 50.0 | | 89.8 | 69-126 | 0.754 | 26 | |
| 1,2-Dibromo-3-chloropropane | 40.67 | 5.0 | ug/L | 50.0 | | 81.3 | 50-143 | 0.123 | 30 | |
| *Surrogate: Dibromofluoromethane* | *48.0* | | ug/L | *50.2* | | *95.6* | *80-126* | | | |
| *Surrogate: Dibromofluoromethane* | *48.0* | | ug/L | *50.2* | | *95.6* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *48.3* | | ug/L | *50.1* | | *96.5* | *63-138* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *48.3* | | ug/L | *50.1* | | *96.5* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *50.0* | | ug/L | *50.4* | | *99.2* | *87-116* | | | |
| *Surrogate: Toluene-d8* | *50.0* | | ug/L | *50.4* | | *99.2* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *51.5* | | ug/L | *50.1* | | *103* | *85-111* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *51.5* | | ug/L | *50.1* | | *103* | *80-116* | | | |
| **Matrix Spike (1HC1242-MS1)** | **Source: 1HC1337-04** | | | Prepared: 03/21/24 00:00 Analyzed: 03/22/24 05:28 | | | | | | |
| Chloromethane | 291.9 | 10.0 | ug/L | 306 | ND | 95.3 | 61-152 | | | |
| Vinyl Chloride | 263.9 | 10.0 | ug/L | 302 | ND | 87.3 | 66-149 | | | |
| Bromomethane | 258.9 | 10.0 | ug/L | 288 | ND | 89.9 | 43-171 | | | |
| Chloroethane | 306.1 | 10.0 | ug/L | 316 | ND | 96.8 | 69-148 | | | |
| Trichlorofluoromethane | 254.2 | 10.0 | ug/L | 326 | ND | 78.0 | 62-163 | | | |
| 1,1-Dichloroethylene | 463.1 | 10.0 | ug/L | 500 | ND | 92.6 | 70-148 | | | |
| Acetone | 886.3 | 100 | ug/L | 1020 | ND | 86.9 | 45-173 | | | |
| Methyl Iodide | 980.1 | 10.0 | ug/L | 997 | ND | 98.3 | 62-167 | | | |
| Carbon Disulfide | 891.0 | 10.0 | ug/L | 1010 | ND | 88.2 | 71-163 | | | |
| Methylene Chloride | 422.8 | 50.0 | ug/L | 500 | ND | 84.6 | 69-140 | | | |
| Acrylonitrile | 703.7 | 50.0 | ug/L | 1000 | ND | 70.1 | 58-151 | | | |
| trans-1,2-Dichloroethylene | 476.4 | 10.0 | ug/L | 500 | ND | 95.3 | 69-144 | | | |
| 1,1-Dichloroethane | 460.3 | 10.0 | ug/L | 500 | ND | 92.1 | 70-138 | | | |
| Vinyl Acetate | 1005 | 50.0 | ug/L | 1020 | ND | 98.7 | 58-142 | | | |
| cis-1,2-Dichloroethylene | 439.3 | 10.0 | ug/L | 495 | ND | 88.8 | 68-151 | | | |
| 2-Butanone (MEK) | 837.2 | 100 | ug/L | 1030 | ND | 81.0 | 50-160 | | | |
| Bromochloromethane | 444.9 | 10.0 | ug/L | 500 | ND | 89.0 | 65-143 | | | |
| Chloroform | 461.7 | 10.0 | ug/L | 500 | ND | 92.3 | 71-143 | | | |
| 1,1,1-Trichloroethane | 430.4 | 10.0 | ug/L | 500 | ND | 86.1 | 63-133 | | | |
| Carbon Tetrachloride | 458.3 | 10.0 | ug/L | 500 | ND | 91.7 | 63-142 | | | |
| Benzene | 526.1 | 10.0 | ug/L | 500 | ND | 105 | 69-133 | | | |
| 1,2-Dichloroethane | 463.8 | 10.0 | ug/L | 500 | ND | 92.8 | 63-138 | | | |
| Trichloroethylene | 495.3 | 10.0 | ug/L | 500 | ND | 99.1 | 71-133 | | | |
| 1,2-Dichloropropane | 476.6 | 10.0 | ug/L | 500 | ND | 95.3 | 69-132 | | | |
| Dibromomethane | 478.3 | 10.0 | ug/L | 500 | ND | 95.7 | 70-147 | | | |
| Bromodichloromethane | 452.3 | 10.0 | ug/L | 500 | ND | 90.5 | 67-130 | | | |
| cis-1,3-Dichloropropene | 381.6 | 10.0 | ug/L | 503 | ND | 75.8 | 61-126 | | | |
| 4-Methyl-2-pentanone (MIBK) | 803.8 | 50.0 | ug/L | 1010 | ND | 79.3 | 55-147 | | | |
| Toluene | 500.1 | 10.0 | ug/L | 500 | ND | 100 | 71-133 | | | |
| trans-1,3-Dichloropropene | 389.4 | 10.0 | ug/L | 504 | ND | 77.2 | 63-124 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Matrix Spike (1HC1242-MS1)** | **Source: 1HC1337-04** | | Prepared: 03/21/24 00:00 Analyzed: 03/22/24 05:28 | | | | | | | |
| 1,1,2-Trichloroethane | 458.3 | 10.0 | ug/L | 500 | ND | 91.7 | 69-133 | | | |
| Tetrachloroethylene | 524.5 | 10.0 | ug/L | 500 | ND | 105 | 70-124 | | | |
| 2-Hexanone (MBK) | 866.3 | 50.0 | ug/L | 1030 | ND | 83.9 | 53-141 | | | |
| Dibromochloromethane | 473.2 | 10.0 | ug/L | 495 | ND | 95.6 | 74-122 | | | |
| 1,2-Dibromoethane | 460.4 | 10.0 | ug/L | 500 | ND | 92.1 | 66-127 | | | |
| Chlorobenzene | 513.1 | 10.0 | ug/L | 500 | ND | 103 | 76-116 | | | |
| 1,1,1,2-Tetrachloroethane | 520.3 | 10.0 | ug/L | 500 | ND | 104 | 77-121 | | | |
| Ethylbenzene | 495.1 | 10.0 | ug/L | 500 | ND | 99.0 | 73-124 | | | |
| Xylenes, total | 1488 | 20.0 | ug/L | 1500 | ND | 99.2 | 75-123 | | | |
| Styrene | 479.7 | 10.0 | ug/L | 500 | ND | 95.9 | 70-120 | | | |
| Bromoform | 487.9 | 10.0 | ug/L | 500 | ND | 97.6 | 70-124 | | | |
| 1,2,3-Trichloropropane | 467.4 | 10.0 | ug/L | 500 | ND | 93.5 | 62-135 | | | |
| trans-1,4-Dichloro-2-butene | 690.2 | 50.0 | ug/L | 1040 | ND | 66.4 | 50-120 | | | |
| 1,1,2,2-Tetrachloroethane | 456.3 | 10.0 | ug/L | 498 | ND | 91.5 | 63-126 | | | |
| 1,4-Dichlorobenzene | 461.0 | 10.0 | ug/L | 500 | ND | 92.2 | 72-119 | | | |
| 1,2-Dichlorobenzene | 456.2 | 10.0 | ug/L | 500 | ND | 91.2 | 71-117 | | | |
| 1,2-Dibromo-3-chloropropane | 389.2 | 50.0 | ug/L | 500 | ND | 77.8 | 49-134 | | | |
| *Surrogate: Dibromofluoromethane* | *484* | | ug/L | *502* | | *96.5* | *80-126* | | | |
| *Surrogate: Dibromofluoromethane* | *484* | | ug/L | *502* | | *96.5* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *497* | | ug/L | *501* | | *99.3* | *63-138* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *497* | | ug/L | *501* | | *99.3* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *499* | | ug/L | *504* | | *99.0* | *87-116* | | | |
| *Surrogate: Toluene-d8* | *499* | | ug/L | *504* | | *99.0* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *511* | | ug/L | *501* | | *102* | *85-111* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *511* | | ug/L | *501* | | *102* | *80-116* | | | |
| **Matrix Spike (1HC1242-MS2)** | **Source: 1HC1336-11** | | Prepared: 03/21/24 00:00 Analyzed: 03/22/24 06:21 | | | | | | | |
| Chloromethane | 278.6 | 10.0 | ug/L | 306 | ND | 90.9 | 61-152 | | | |
| Vinyl Chloride | 258.8 | 10.0 | ug/L | 302 | ND | 85.6 | 66-149 | | | |
| Bromomethane | 256.5 | 10.0 | ug/L | 288 | ND | 89.1 | 43-171 | | | |
| Chloroethane | 293.9 | 10.0 | ug/L | 316 | ND | 92.9 | 69-148 | | | |
| Trichlorofluoromethane | 255.4 | 10.0 | ug/L | 326 | ND | 78.3 | 62-163 | | | |
| 1,1-Dichloroethylene | 445.5 | 10.0 | ug/L | 500 | ND | 89.1 | 70-148 | | | |
| Acetone | 840.1 | 100 | ug/L | 1020 | ND | 82.4 | 45-173 | | | |
| Methyl Iodide | 926.4 | 10.0 | ug/L | 997 | ND | 92.9 | 62-167 | | | |
| Carbon Disulfide | 843.0 | 10.0 | ug/L | 1010 | ND | 83.5 | 71-163 | | | |
| Methylene Chloride | 394.8 | 50.0 | ug/L | 500 | ND | 79.0 | 69-140 | | | |
| Acrylonitrile | 661.3 | 50.0 | ug/L | 1000 | ND | 65.9 | 58-151 | | | |
| trans-1,2-Dichloroethylene | 444.3 | 10.0 | ug/L | 500 | ND | 88.9 | 69-144 | | | |
| 1,1-Dichloroethane | 429.7 | 10.0 | ug/L | 500 | ND | 85.9 | 70-138 | | | |
| Vinyl Acetate | 965.3 | 50.0 | ug/L | 1020 | ND | 94.7 | 58-142 | | | |
| cis-1,2-Dichloroethylene | 413.0 | 10.0 | ug/L | 495 | ND | 83.5 | 68-151 | | | |
| 2-Butanone (MEK) | 824.4 | 100 | ug/L | 1030 | ND | 79.8 | 50-160 | | | |
| Bromochloromethane | 414.6 | 10.0 | ug/L | 500 | ND | 82.9 | 65-143 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Matrix Spike (1HC1242-MS2)** | **Source: 1HC1336-11** | | Prepared: 03/21/24 00:00 Analyzed: 03/22/24 06:21 | | | | | | | |
| Chloroform | 425.3 | 10.0 | ug/L | 500 | ND | 85.1 | 71-143 | | | |
| 1,1,1-Trichloroethane | 409.2 | 10.0 | ug/L | 500 | ND | 81.9 | 63-133 | | | |
| Carbon Tetrachloride | 437.5 | 10.0 | ug/L | 500 | ND | 87.5 | 63-142 | | | |
| Benzene | 495.6 | 10.0 | ug/L | 500 | ND | 99.1 | 69-133 | | | |
| 1,2-Dichloroethane | 430.3 | 10.0 | ug/L | 500 | ND | 86.1 | 63-138 | | | |
| Trichloroethylene | 471.9 | 10.0 | ug/L | 500 | ND | 94.4 | 71-133 | | | |
| 1,2-Dichloropropane | 457.4 | 10.0 | ug/L | 500 | ND | 91.5 | 69-132 | | | |
| Dibromomethane | 444.4 | 10.0 | ug/L | 500 | ND | 88.9 | 70-147 | | | |
| Bromodichloromethane | 424.0 | 10.0 | ug/L | 500 | ND | 84.8 | 67-130 | | | |
| cis-1,3-Dichloropropene | 400.4 | 10.0 | ug/L | 503 | ND | 79.6 | 61-126 | | | |
| 4-Methyl-2-pentanone (MIBK) | 822.3 | 50.0 | ug/L | 1010 | ND | 81.1 | 55-147 | | | |
| Toluene | 477.5 | 10.0 | ug/L | 500 | ND | 95.5 | 71-133 | | | |
| trans-1,3-Dichloropropene | 377.2 | 10.0 | ug/L | 504 | ND | 74.8 | 63-124 | | | |
| 1,1,2-Trichloroethane | 425.9 | 10.0 | ug/L | 500 | ND | 85.2 | 69-133 | | | |
| Tetrachloroethylene | 490.1 | 10.0 | ug/L | 500 | ND | 98.0 | 70-124 | | | |
| 2-Hexanone (MBK) | 852.1 | 50.0 | ug/L | 1030 | ND | 82.5 | 53-141 | | | |
| Dibromochloromethane | 443.5 | 10.0 | ug/L | 495 | ND | 89.6 | 74-122 | | | |
| 1,2-Dibromoethane | 429.4 | 10.0 | ug/L | 500 | ND | 85.9 | 66-127 | | | |
| Chlorobenzene | 484.5 | 10.0 | ug/L | 500 | ND | 96.9 | 76-116 | | | |
| 1,1,1,2-Tetrachloroethane | 491.3 | 10.0 | ug/L | 500 | ND | 98.3 | 77-121 | | | |
| Ethylbenzene | 472.9 | 10.0 | ug/L | 500 | ND | 94.6 | 73-124 | | | |
| Xylenes, total | 1423 | 20.0 | ug/L | 1500 | ND | 94.8 | 75-123 | | | |
| Styrene | 453.6 | 10.0 | ug/L | 500 | ND | 90.7 | 70-120 | | | |
| Bromoform | 462.6 | 10.0 | ug/L | 500 | ND | 92.5 | 70-124 | | | |
| 1,2,3-Trichloropropane | 437.8 | 10.0 | ug/L | 500 | ND | 87.6 | 62-135 | | | |
| trans-1,4-Dichloro-2-butene | 691.2 | 50.0 | ug/L | 1040 | ND | 66.5 | 50-120 | | | |
| 1,1,2,2-Tetrachloroethane | 434.5 | 10.0 | ug/L | 498 | ND | 87.2 | 63-126 | | | |
| 1,4-Dichlorobenzene | 442.2 | 10.0 | ug/L | 500 | ND | 88.4 | 72-119 | | | |
| 1,2-Dichlorobenzene | 444.7 | 10.0 | ug/L | 500 | ND | 88.9 | 71-117 | | | |
| 1,2-Dibromo-3-chloropropane | 402.6 | 50.0 | ug/L | 500 | ND | 80.5 | 49-134 | | | |
| *Surrogate: Dibromofluoromethane* | *460* | | ug/L | *502* | | *91.7* | *80-126* | | | |
| *Surrogate: Dibromofluoromethane* | *460* | | ug/L | *502* | | *91.7* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *468* | | ug/L | *501* | | *93.5* | *63-138* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *468* | | ug/L | *501* | | *93.5* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *497* | | ug/L | *504* | | *98.6* | *87-116* | | | |
| *Surrogate: Toluene-d8* | *497* | | ug/L | *504* | | *98.6* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *514* | | ug/L | *501* | | *103* | *85-111* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *514* | | ug/L | *501* | | *103* | *80-116* | | | |
| **Matrix Spike Dup (1HC1242-MSD1)** | **Source: 1HC1337-04** | | Prepared: 03/21/24 00:00 Analyzed: 03/22/24 05:54 | | | | | | | |
| Chloromethane | 279.3 | 10.0 | ug/L | 306 | ND | 91.1 | 61-152 | 4.41 | 26 | |
| Vinyl Chloride | 251.0 | 10.0 | ug/L | 302 | ND | 83.0 | 66-149 | 5.01 | 23 | |
| Bromomethane | 260.2 | 10.0 | ug/L | 288 | ND | 90.3 | 43-171 | 0.501 | 29 | |
| Chloroethane | 291.1 | 10.0 | ug/L | 316 | ND | 92.0 | 69-148 | 5.02 | 25 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Matrix Spike Dup (1HC1242-MSD1)** | **Source: 1HC1337-04** | Prepared: 03/21/24 00:00 Analyzed: 03/22/24 05:54 | | | | | | | | |
| Trichlorofluoromethane | 236.7 | 10.0 | ug/L | 326 | ND | 72.6 | 62-163 | 7.13 | 25 | |
| 1,1-Dichloroethylene | 444.6 | 10.0 | ug/L | 500 | ND | 88.9 | 70-148 | 4.08 | 22 | |
| Acetone | 907.8 | 100 | ug/L | 1020 | ND | 89.0 | 45-173 | 2.40 | 30 | |
| Methyl Iodide | 943.9 | 10.0 | ug/L | 997 | ND | 94.7 | 62-167 | 3.76 | 24 | |
| Carbon Disulfide | 839.9 | 10.0 | ug/L | 1010 | ND | 83.2 | 71-163 | 5.90 | 22 | |
| Methylene Chloride | 418.1 | 50.0 | ug/L | 500 | ND | 83.6 | 69-140 | 1.12 | 19 | |
| Acrylonitrile | 734.4 | 50.0 | ug/L | 1000 | ND | 73.2 | 58-151 | 4.27 | 15 | |
| trans-1,2-Dichloroethylene | 458.3 | 10.0 | ug/L | 500 | ND | 91.7 | 69-144 | 3.87 | 22 | |
| 1,1-Dichloroethane | 446.0 | 10.0 | ug/L | 500 | ND | 89.2 | 70-138 | 3.16 | 20 | |
| Vinyl Acetate | 1014 | 50.0 | ug/L | 1020 | ND | 99.5 | 58-142 | 0.871 | 24 | |
| cis-1,2-Dichloroethylene | 432.4 | 10.0 | ug/L | 495 | ND | 87.4 | 68-151 | 1.58 | 22 | |
| 2-Butanone (MEK) | 833.9 | 100 | ug/L | 1030 | ND | 80.7 | 50-160 | 0.395 | 23 | |
| Bromochloromethane | 445.6 | 10.0 | ug/L | 500 | ND | 89.1 | 65-143 | 0.157 | 22 | |
| Chloroform | 447.7 | 10.0 | ug/L | 500 | ND | 89.5 | 71-143 | 3.08 | 21 | |
| 1,1,1-Trichloroethane | 413.2 | 10.0 | ug/L | 500 | ND | 82.7 | 63-133 | 4.08 | 23 | |
| Carbon Tetrachloride | 437.6 | 10.0 | ug/L | 500 | ND | 87.5 | 63-142 | 4.62 | 22 | |
| Benzene | 499.8 | 10.0 | ug/L | 500 | ND | 100 | 69-133 | 5.13 | 18 | |
| 1,2-Dichloroethane | 452.1 | 10.0 | ug/L | 500 | ND | 90.4 | 63-138 | 2.55 | 20 | |
| Trichloroethylene | 469.2 | 10.0 | ug/L | 500 | ND | 93.8 | 71-133 | 5.41 | 23 | |
| 1,2-Dichloropropane | 470.0 | 10.0 | ug/L | 500 | ND | 94.0 | 69-132 | 1.39 | 20 | |
| Dibromomethane | 475.9 | 10.0 | ug/L | 500 | ND | 95.2 | 70-147 | 0.503 | 22 | |
| Bromodichloromethane | 440.5 | 10.0 | ug/L | 500 | ND | 88.1 | 67-130 | 2.64 | 21 | |
| cis-1,3-Dichloropropene | 384.0 | 10.0 | ug/L | 503 | ND | 76.3 | 61-126 | 0.627 | 21 | |
| 4-Methyl-2-pentanone (MIBK) | 824.3 | 50.0 | ug/L | 1010 | ND | 81.3 | 55-147 | 2.52 | 23 | |
| Toluene | 478.3 | 10.0 | ug/L | 500 | ND | 95.7 | 71-133 | 4.46 | 19 | |
| trans-1,3-Dichloropropene | 395.2 | 10.0 | ug/L | 504 | ND | 78.4 | 63-124 | 1.48 | 21 | |
| 1,1,2-Trichloroethane | 451.9 | 10.0 | ug/L | 500 | ND | 90.4 | 69-133 | 1.41 | 19 | |
| Tetrachloroethylene | 485.1 | 10.0 | ug/L | 500 | ND | 97.0 | 70-124 | 7.81 | 24 | |
| 2-Hexanone (MBK) | 909.4 | 50.0 | ug/L | 1030 | ND | 88.0 | 53-141 | 4.85 | 24 | |
| Dibromochloromethane | 468.0 | 10.0 | ug/L | 495 | ND | 94.5 | 74-122 | 1.10 | 21 | |
| 1,2-Dibromoethane | 463.3 | 10.0 | ug/L | 500 | ND | 92.7 | 66-127 | 0.628 | 23 | |
| Chlorobenzene | 494.9 | 10.0 | ug/L | 500 | ND | 99.0 | 76-116 | 3.61 | 21 | |
| 1,1,1,2-Tetrachloroethane | 504.6 | 10.0 | ug/L | 500 | ND | 101 | 77-121 | 3.06 | 25 | |
| Ethylbenzene | 471.2 | 10.0 | ug/L | 500 | ND | 94.2 | 73-124 | 4.95 | 20 | |
| Xylenes, total | 1426 | 20.0 | ug/L | 1500 | ND | 95.1 | 75-123 | 4.27 | 20 | |
| Styrene | 462.8 | 10.0 | ug/L | 500 | ND | 92.6 | 70-120 | 3.59 | 23 | |
| Bromoform | 484.9 | 10.0 | ug/L | 500 | ND | 97.0 | 70-124 | 0.617 | 22 | |
| 1,2,3-Trichloropropane | 460.6 | 10.0 | ug/L | 500 | ND | 92.1 | 62-135 | 1.47 | 28 | |
| trans-1,4-Dichloro-2-butene | 715.9 | 50.0 | ug/L | 1040 | ND | 68.9 | 50-120 | 3.66 | 26 | |
| 1,1,2,2-Tetrachloroethane | 450.3 | 10.0 | ug/L | 498 | ND | 90.3 | 63-126 | 1.32 | 24 | |
| 1,4-Dichlorobenzene | 442.4 | 10.0 | ug/L | 500 | ND | 88.5 | 72-119 | 4.12 | 24 | |
| 1,2-Dichlorobenzene | 447.3 | 10.0 | ug/L | 500 | ND | 89.5 | 71-117 | 1.97 | 24 | |
| 1,2-Dibromo-3-chloropropane | 401.1 | 50.0 | ug/L | 500 | ND | 80.2 | 49-134 | 3.01 | 28 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Matrix Spike Dup (1HC1242-MSD1)** | **Source: 1HC1337-04** | | Prepared: 03/21/24 00:00 Analyzed: 03/22/24 05:54 | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *487* | | ug/L | *502* | | *97.1* | *80-126* | | | |
| *Surrogate: Dibromofluoromethane* | *487* | | ug/L | *502* | | *97.1* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *502* | | ug/L | *501* | | *100* | *63-138* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *502* | | ug/L | *501* | | *100* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *498* | | ug/L | *504* | | *98.8* | *87-116* | | | |
| *Surrogate: Toluene-d8* | *498* | | ug/L | *504* | | *98.8* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *520* | | ug/L | *501* | | *104* | *85-111* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *520* | | ug/L | *501* | | *104* | *80-116* | | | |
| **Matrix Spike Dup (1HC1242-MSD2)** | **Source: 1HC1336-11** | | Prepared: 03/21/24 00:00 Analyzed: 03/22/24 06:47 | | | | | | | |
| Chloromethane | 266.0 | 10.0 | ug/L | 306 | ND | 86.8 | 61-152 | 4.63 | 26 | |
| Vinyl Chloride | 245.5 | 10.0 | ug/L | 302 | ND | 81.2 | 66-149 | 5.27 | 23 | |
| Bromomethane | 246.1 | 10.0 | ug/L | 288 | ND | 85.5 | 43-171 | 4.14 | 29 | |
| Chloroethane | 277.3 | 10.0 | ug/L | 316 | ND | 87.7 | 69-148 | 5.81 | 25 | |
| Trichlorofluoromethane | 246.5 | 10.0 | ug/L | 326 | ND | 75.6 | 62-163 | 3.55 | 25 | |
| 1,1-Dichloroethylene | 437.8 | 10.0 | ug/L | 500 | ND | 87.6 | 70-148 | 1.74 | 22 | |
| Acetone | 860.1 | 100 | ug/L | 1020 | ND | 84.3 | 45-173 | 2.35 | 30 | |
| Methyl Iodide | 897.0 | 10.0 | ug/L | 997 | ND | 90.0 | 62-167 | 3.22 | 24 | |
| Carbon Disulfide | 807.5 | 10.0 | ug/L | 1010 | ND | 80.0 | 71-163 | 4.30 | 22 | |
| Methylene Chloride | 389.5 | 50.0 | ug/L | 500 | ND | 77.9 | 69-140 | 1.35 | 19 | |
| Acrylonitrile | 685.1 | 50.0 | ug/L | 1000 | ND | 68.3 | 58-151 | 3.54 | 15 | |
| trans-1,2-Dichloroethylene | 437.5 | 10.0 | ug/L | 500 | ND | 87.5 | 69-144 | 1.54 | 22 | |
| 1,1-Dichloroethane | 422.7 | 10.0 | ug/L | 500 | ND | 84.5 | 70-138 | 1.64 | 20 | |
| Vinyl Acetate | 939.8 | 50.0 | ug/L | 1020 | ND | 92.2 | 58-142 | 2.68 | 24 | |
| cis-1,2-Dichloroethylene | 410.6 | 10.0 | ug/L | 495 | ND | 83.0 | 68-151 | 0.583 | 22 | |
| 2-Butanone (MEK) | 802.9 | 100 | ug/L | 1030 | ND | 77.7 | 50-160 | 2.64 | 23 | |
| Bromochloromethane | 417.1 | 10.0 | ug/L | 500 | ND | 83.4 | 65-143 | 0.601 | 22 | |
| Chloroform | 424.2 | 10.0 | ug/L | 500 | ND | 84.8 | 71-143 | 0.259 | 21 | |
| 1,1,1-Trichloroethane | 399.8 | 10.0 | ug/L | 500 | ND | 80.0 | 63-133 | 2.32 | 23 | |
| Carbon Tetrachloride | 426.8 | 10.0 | ug/L | 500 | ND | 85.4 | 63-142 | 2.48 | 22 | |
| Benzene | 474.7 | 10.0 | ug/L | 500 | ND | 94.9 | 69-133 | 4.31 | 18 | |
| 1,2-Dichloroethane | 430.6 | 10.0 | ug/L | 500 | ND | 86.1 | 63-138 | 0.0697 | 20 | |
| Trichloroethylene | 455.9 | 10.0 | ug/L | 500 | ND | 91.2 | 71-133 | 3.45 | 23 | |
| 1,2-Dichloropropane | 451.4 | 10.0 | ug/L | 500 | ND | 90.3 | 69-132 | 1.32 | 20 | |
| Dibromomethane | 442.3 | 10.0 | ug/L | 500 | ND | 88.5 | 70-147 | 0.474 | 22 | |
| Bromodichloromethane | 421.5 | 10.0 | ug/L | 500 | ND | 84.3 | 67-130 | 0.591 | 21 | |
| cis-1,3-Dichloropropene | 398.7 | 10.0 | ug/L | 503 | ND | 79.2 | 61-126 | 0.425 | 21 | |
| 4-Methyl-2-pentanone (MIBK) | 833.1 | 50.0 | ug/L | 1010 | ND | 82.2 | 55-147 | 1.30 | 23 | |
| Toluene | 458.5 | 10.0 | ug/L | 500 | ND | 91.7 | 71-133 | 4.06 | 19 | |
| trans-1,3-Dichloropropene | 380.5 | 10.0 | ug/L | 504 | ND | 75.5 | 63-124 | 0.871 | 21 | |
| 1,1,2-Trichloroethane | 427.2 | 10.0 | ug/L | 500 | ND | 85.4 | 69-133 | 0.305 | 19 | |
| Tetrachloroethylene | 475.1 | 10.0 | ug/L | 500 | ND | 95.0 | 70-124 | 3.11 | 24 | |
| 2-Hexanone (MBK) | 866.6 | 50.0 | ug/L | 1030 | ND | 83.9 | 53-141 | 1.69 | 24 | |
| Dibromochloromethane | 444.5 | 10.0 | ug/L | 495 | ND | 89.8 | 74-122 | 0.225 | 21 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1242 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Matrix Spike Dup (1HC1242-MSD2)** | **Source: 1HC1336-11** | | Prepared: 03/21/24 00:00 Analyzed: 03/22/24 06:47 | | | | | | | |
| 1,2-Dibromoethane | 435.7 | 10.0 | ug/L | 500 | ND | 87.1 | 66-127 | 1.46 | 23 | |
| Chlorobenzene | 472.2 | 10.0 | ug/L | 500 | ND | 94.4 | 76-116 | 2.57 | 21 | |
| 1,1,1,2-Tetrachloroethane | 476.2 | 10.0 | ug/L | 500 | ND | 95.2 | 77-121 | 3.12 | 25 | |
| Ethylbenzene | 458.0 | 10.0 | ug/L | 500 | ND | 91.6 | 73-124 | 3.20 | 20 | |
| Xylenes, total | 1380 | 20.0 | ug/L | 1500 | ND | 92.0 | 75-123 | 3.08 | 20 | |
| Styrene | 441.9 | 10.0 | ug/L | 500 | ND | 88.4 | 70-120 | 2.61 | 23 | |
| Bromoform | 454.9 | 10.0 | ug/L | 500 | ND | 91.0 | 70-124 | 1.68 | 22 | |
| 1,2,3-Trichloropropane | 425.6 | 10.0 | ug/L | 500 | ND | 85.1 | 62-135 | 2.83 | 28 | |
| trans-1,4-Dichloro-2-butene | 692.8 | 50.0 | ug/L | 1040 | ND | 66.7 | 50-120 | 0.231 | 26 | |
| 1,1,2,2-Tetrachloroethane | 442.9 | 10.0 | ug/L | 498 | ND | 88.8 | 63-126 | 1.91 | 24 | |
| 1,4-Dichlorobenzene | 446.1 | 10.0 | ug/L | 500 | ND | 89.2 | 72-119 | 0.878 | 24 | |
| 1,2-Dichlorobenzene | 442.1 | 10.0 | ug/L | 500 | ND | 88.4 | 71-117 | 0.586 | 24 | |
| 1,2-Dibromo-3-chloropropane | 391.2 | 50.0 | ug/L | 500 | ND | 78.2 | 49-134 | 2.87 | 28 | |
| *Surrogate: Dibromofluoromethane* | *465* | | ug/L | *502* | | *92.6* | *80-126* | | | |
| *Surrogate: Dibromofluoromethane* | *465* | | ug/L | *502* | | *92.6* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *472* | | ug/L | *501* | | *94.3* | *63-138* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *472* | | ug/L | *501* | | *94.3* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *492* | | ug/L | *504* | | *97.7* | *87-116* | | | |
| *Surrogate: Toluene-d8* | *492* | | ug/L | *504* | | *97.7* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *509* | | ug/L | *501* | | *102* | *85-111* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *509* | | ug/L | *501* | | *102* | *80-116* | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1176 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Blank (1HC1176-BLK1)** | | | Prepared: 03/21/24 09:17 Analyzed: 03/22/24 13:07 | | | | | | | |
| 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 | | | | | | | ZZZQB-12 |
| Zinc, total | <0.0200 | 0.0200 | mg/L | | | | | | | |
| **LCS (1HC1176-BS1)** | | | Prepared: 03/21/24 09:17 Analyzed: 03/22/24 13:14 | | | | | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1176 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **LCS (1HC1176-BS1)** | | | | Prepared: 03/21/24 09:17 Analyzed: 03/22/24 13:14 | | | | | | |
| Antimony, total | 0.0937 | 0.0020 | mg/L | 0.100 | | 93.7 | 80-120 | | | |
| Arsenic, total | 0.0937 | 0.0040 | mg/L | 0.100 | | 93.7 | 80-120 | | | |
| Barium, total | 0.105 | 0.0040 | mg/L | 0.100 | | 105 | 80-120 | | | |
| Beryllium, total | 0.0909 | 0.0040 | mg/L | 0.100 | | 90.9 | 80-120 | | | |
| Cadmium, total | 0.0899 | 0.0008 | mg/L | 0.100 | | 89.9 | 80-120 | | | |
| Chromium, total | 0.0939 | 0.0080 | mg/L | 0.100 | | 93.9 | 80-120 | | | |
| Cobalt, total | 0.0893 | 0.0004 | mg/L | 0.100 | | 89.3 | 80-120 | | | |
| Copper, total | 0.0894 | 0.0040 | mg/L | 0.100 | | 89.4 | 80-120 | | | |
| Lead, total | 0.0984 | 0.0040 | mg/L | 0.100 | | 98.4 | 80-120 | | | |
| Nickel, total | 0.0856 | 0.0040 | mg/L | 0.100 | | 85.6 | 80-120 | | | |
| Selenium, total | 0.0924 | 0.0040 | mg/L | 0.100 | | 92.4 | 80-120 | | | |
| Silver, total | 0.0956 | 0.0040 | mg/L | 0.100 | | 95.6 | 80-120 | | | |
| Thallium, total | 0.0983 | 0.0020 | mg/L | 0.100 | | 98.3 | 80-120 | | | |
| Vanadium, total | 0.102 | 0.0200 | mg/L | 0.100 | | 102 | 80-120 | | | |
| Zinc, total | 0.0874 | 0.0200 | mg/L | 0.100 | | 87.4 | 80-120 | | | |
| **Matrix Spike (1HC1176-MS1)** | | **Source: 1HC1337-01** | | Prepared: 03/21/24 09:17 Analyzed: 03/22/24 13:56 | | | | | | |
| Antimony, total | 0.0944 | 0.0020 | mg/L | 0.100 | ND | 94.4 | 75-125 | | | |
| Arsenic, total | 0.0972 | 0.0040 | mg/L | 0.100 | 0.0027 | 94.4 | 75-125 | | | |
| Barium, total | 0.879 | 0.0040 | mg/L | 0.100 | 0.784 | 95.4 | 75-125 | | | |
| Beryllium, total | 0.0922 | 0.0040 | mg/L | 0.100 | ND | 92.2 | 75-125 | | | |
| Cadmium, total | 0.0846 | 0.0008 | mg/L | 0.100 | 0.0002 | 84.4 | 75-125 | | | |
| Chromium, total | 0.0905 | 0.0080 | mg/L | 0.100 | 0.0008 | 89.7 | 75-125 | | | |
| Cobalt, total | 0.102 | 0.0004 | mg/L | 0.100 | 0.0140 | 88.4 | 75-125 | | | |
| Copper, total | 0.0828 | 0.0040 | mg/L | 0.100 | 0.0014 | 81.4 | 75-125 | | | |
| Lead, total | 0.0915 | 0.0040 | mg/L | 0.100 | 0.0008 | 90.7 | 75-125 | | | |
| Nickel, total | 0.0993 | 0.0040 | mg/L | 0.100 | 0.0190 | 80.3 | 75-125 | | | |
| Selenium, total | 0.0913 | 0.0040 | mg/L | 0.100 | ND | 91.3 | 75-125 | | | |
| Silver, total | 0.0921 | 0.0040 | mg/L | 0.100 | ND | 92.1 | 75-125 | | | |
| Thallium, total | 0.0923 | 0.0020 | mg/L | 0.100 | ND | 92.3 | 75-125 | | | |
| Vanadium, total | 0.0986 | 0.0200 | mg/L | 0.100 | ND | 98.6 | 75-125 | | | |
| Zinc, total | 0.0842 | 0.0200 | mg/L | 0.100 | ND | 84.2 | 75-125 | | | |
| **Matrix Spike Dup (1HC1176-MSD1)** | | **Source: 1HC1337-01** | | Prepared: 03/21/24 09:17 Analyzed: 03/22/24 14:03 | | | | | | |
| Antimony, total | 0.0957 | 0.0020 | mg/L | 0.100 | ND | 95.7 | 75-125 | 1.35 | 20 | |
| Arsenic, total | 0.0990 | 0.0040 | mg/L | 0.100 | 0.0027 | 96.3 | 75-125 | 1.86 | 20 | |
| Barium, total | 0.924 | 0.0040 | mg/L | 0.100 | 0.784 | 140 | 75-125 | 4.96 | 20 | ZZZQM-4X |
| Beryllium, total | 0.0916 | 0.0040 | mg/L | 0.100 | ND | 91.6 | 75-125 | 0.669 | 20 | |
| Cadmium, total | 0.0856 | 0.0008 | mg/L | 0.100 | 0.0002 | 85.4 | 75-125 | 1.16 | 20 | |
| Chromium, total | 0.0914 | 0.0080 | mg/L | 0.100 | 0.0008 | 90.6 | 75-125 | 0.973 | 20 | |
| Cobalt, total | 0.104 | 0.0004 | mg/L | 0.100 | 0.0140 | 89.5 | 75-125 | 1.12 | 20 | |
| Copper, total | 0.0830 | 0.0040 | mg/L | 0.100 | 0.0014 | 81.7 | 75-125 | 0.311 | 20 | |
| Lead, total | 0.0953 | 0.0040 | mg/L | 0.100 | 0.0008 | 94.5 | 75-125 | 4.06 | 20 | |
| Nickel, total | 0.102 | 0.0040 | mg/L | 0.100 | 0.0190 | 83.1 | 75-125 | 2.71 | 20 | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1176 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Matrix Spike Dup (1HC1176-MSD1)** | **Source: 1HC1337-01** | | Prepared: 03/21/24 09:17 Analyzed: 03/22/24 14:03 | | | | | | | |
| Selenium, total | 0.0967 | 0.0040 | mg/L | 0.100 | ND | 96.7 | 75-125 | 5.78 | 20 | |
| Silver, total | 0.0945 | 0.0040 | mg/L | 0.100 | ND | 94.5 | 75-125 | 2.54 | 20 | |
| Thallium, total | 0.0964 | 0.0020 | mg/L | 0.100 | ND | 96.4 | 75-125 | 4.36 | 20 | |
| Vanadium, total | 0.0999 | 0.0200 | mg/L | 0.100 | ND | 99.9 | 75-125 | 1.29 | 20 | |
| Zinc, total | 0.0857 | 0.0200 | mg/L | 0.100 | ND | 85.7 | 75-125 | 1.80 | 20 | |
| **Post Spike (1HC1176-PS1)** | **Source: 1HC1337-01** | | Prepared: 03/21/24 09:17 Analyzed: 03/22/24 14:09 | | | | | | | |
| Antimony, total | 0.0811 | | mg/L | 0.0800 | 0.00006 | 101 | 80-120 | | | |
| Arsenic, total | 0.0841 | | mg/L | 0.0800 | 0.0027 | 102 | 80-120 | | | |
| Barium, total | 0.902 | | mg/L | 0.0800 | 0.768 | 167 | 80-120 | | | |
| Beryllium, total | 0.0781 | | mg/L | 0.0800 | -0.000007 | 97.7 | 80-120 | | | |
| Cadmium, total | 0.0729 | | mg/L | 0.0800 | 0.0002 | 90.9 | 80-120 | | | |
| Chromium, total | 0.0770 | | mg/L | 0.0800 | 0.0008 | 95.2 | 80-120 | | | |
| Cobalt, total | 0.0906 | | mg/L | 0.0800 | 0.0137 | 96.1 | 80-120 | | | |
| Copper, total | 0.0698 | | mg/L | 0.0800 | 0.0013 | 85.5 | 80-120 | | | |
| Lead, total | 0.0782 | | mg/L | 0.0800 | 0.0008 | 96.8 | 80-120 | | | |
| Nickel, total | 0.0899 | | mg/L | 0.0800 | 0.0186 | 89.1 | 80-120 | | | |
| Selenium, total | 0.0766 | | mg/L | 0.0800 | 0.0007 | 94.9 | 80-120 | | | |
| Silver, total | 0.0794 | | mg/L | 0.0800 | 0.0001 | 99.1 | 80-120 | | | |
| Thallium, total | 0.0814 | | mg/L | 0.0800 | 0.00004 | 102 | 80-120 | | | |
| Vanadium, total | 0.0862 | | mg/L | 0.0800 | 0.0060 | 100 | 80-120 | | | |
| Zinc, total | 0.0704 | | mg/L | 0.0800 | 0.0052 | 81.5 | 80-120 | | | |
| **Batch 1IA0549 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Blank (1IA0549-BLK1)** | | | Prepared: 01/13/25 15:26 Analyzed: 01/15/25 18:38 | | | | | | | |
| 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 (1IA0549-BS1)** | | | Prepared: 01/13/25 15:26 Analyzed: 01/15/25 18:45 | | | | | | | |
| Antimony, total | 0.0949 | 0.0020 | mg/L | 0.100 | | 94.9 | 80-120 | | | |
| Arsenic, total | 0.0980 | 0.0040 | mg/L | 0.100 | | 98.0 | 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 1IA0549 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **LCS (1IA0549-BS1)** | | | | Prepared: 01/13/25 15:26 Analyzed: 01/15/25 18:45 | | | | | | |
| Beryllium, total | 0.0961 | 0.0040 | mg/L | 0.100 | | 96.1 | 80-120 | | | |
| Cadmium, total | 0.0956 | 0.0008 | mg/L | 0.100 | | 95.6 | 80-120 | | | |
| Chromium, total | 0.0969 | 0.0080 | mg/L | 0.100 | | 96.9 | 80-120 | | | |
| Cobalt, total | 0.104 | 0.0004 | mg/L | 0.100 | | 104 | 80-120 | | | |
| Copper, total | 0.102 | 0.0040 | mg/L | 0.100 | | 102 | 80-120 | | | |
| Lead, total | 0.0970 | 0.0040 | mg/L | 0.100 | | 97.0 | 80-120 | | | |
| Nickel, total | 0.106 | 0.0040 | mg/L | 0.100 | | 106 | 80-120 | | | |
| Selenium, total | 0.0956 | 0.0040 | mg/L | 0.100 | | 95.6 | 80-120 | | | |
| Silver, total | 0.101 | 0.0040 | mg/L | 0.100 | | 101 | 80-120 | | | |
| Thallium, total | 0.0978 | 0.0020 | mg/L | 0.100 | | 97.8 | 80-120 | | | |
| Vanadium, total | 0.101 | 0.0200 | mg/L | 0.100 | | 101 | 80-120 | | | |
| Zinc, total | 0.0999 | 0.0200 | mg/L | 0.100 | | 99.9 | 80-120 | | | |
| **Matrix Spike (1IA0549-MS1)** | | **Source: 1IA0501-01** | | Prepared: 01/13/25 15:26 Analyzed: 01/15/25 19:09 | | | | | | |
| Antimony, total | 0.0968 | 0.0020 | mg/L | 0.100 | 0.0008 | 96.0 | 75-125 | | | |
| Arsenic, total | 0.0952 | 0.0040 | mg/L | 0.100 | ND | 95.2 | 75-125 | | | |
| Barium, total | 0.112 | 0.0040 | mg/L | 0.100 | 0.0063 | 105 | 75-125 | | | |
| Beryllium, total | 0.0928 | 0.0040 | mg/L | 0.100 | ND | 92.8 | 75-125 | | | |
| Cadmium, total | 0.0929 | 0.0008 | mg/L | 0.100 | ND | 92.9 | 75-125 | | | |
| Chromium, total | 0.0955 | 0.0080 | mg/L | 0.100 | 0.0027 | 92.8 | 75-125 | | | |
| Cobalt, total | 0.101 | 0.0004 | mg/L | 0.100 | 0.0003 | 101 | 75-125 | | | |
| Copper, total | 0.294 | 0.0040 | mg/L | 0.100 | 0.206 | 87.8 | 75-125 | | | |
| Lead, total | 0.0976 | 0.0040 | mg/L | 0.100 | 0.0044 | 93.2 | 75-125 | | | |
| Nickel, total | 0.105 | 0.0040 | mg/L | 0.100 | 0.0037 | 102 | 75-125 | | | |
| Selenium, total | 0.0952 | 0.0040 | mg/L | 0.100 | ND | 95.2 | 75-125 | | | |
| Silver, total | 0.0961 | 0.0040 | mg/L | 0.100 | ND | 96.1 | 75-125 | | | |
| Thallium, total | 0.0929 | 0.0020 | mg/L | 0.100 | ND | 92.9 | 75-125 | | | |
| Vanadium, total | 0.0995 | 0.0200 | mg/L | 0.100 | ND | 99.5 | 75-125 | | | |
| Zinc, total | 0.331 | 0.0200 | mg/L | 0.100 | 0.246 | 85.0 | 75-125 | | | |
| **Matrix Spike Dup (1IA0549-MSD1)** | | **Source: 1IA0501-01** | | Prepared: 01/13/25 15:26 Analyzed: 01/15/25 19:15 | | | | | | |
| Antimony, total | 0.0972 | 0.0020 | mg/L | 0.100 | 0.0008 | 96.5 | 75-125 | 0.425 | 20 | |
| Arsenic, total | 0.0964 | 0.0040 | mg/L | 0.100 | ND | 96.4 | 75-125 | 1.25 | 20 | |
| Barium, total | 0.114 | 0.0040 | mg/L | 0.100 | 0.0063 | 107 | 75-125 | 1.69 | 20 | |
| Beryllium, total | 0.0951 | 0.0040 | mg/L | 0.100 | ND | 95.1 | 75-125 | 2.39 | 20 | |
| Cadmium, total | 0.0945 | 0.0008 | mg/L | 0.100 | ND | 94.5 | 75-125 | 1.72 | 20 | |
| Chromium, total | 0.0952 | 0.0080 | mg/L | 0.100 | 0.0027 | 92.5 | 75-125 | 0.323 | 20 | |
| Cobalt, total | 0.102 | 0.0004 | mg/L | 0.100 | 0.0003 | 102 | 75-125 | 1.23 | 20 | |
| Copper, total | 0.299 | 0.0040 | mg/L | 0.100 | 0.206 | 93.2 | 75-125 | 1.83 | 20 | |
| Lead, total | 0.0988 | 0.0040 | mg/L | 0.100 | 0.0044 | 94.4 | 75-125 | 1.18 | 20 | |
| Nickel, total | 0.105 | 0.0040 | mg/L | 0.100 | 0.0037 | 102 | 75-125 | 0.221 | 20 | |
| Selenium, total | 0.0969 | 0.0040 | mg/L | 0.100 | ND | 96.9 | 75-125 | 1.82 | 20 | |
| Silver, total | 0.0967 | 0.0040 | mg/L | 0.100 | ND | 96.7 | 75-125 | 0.684 | 20 | |
| Thallium, total | 0.0947 | 0.0020 | mg/L | 0.100 | ND | 94.7 | 75-125 | 1.90 | 20 | |
| Vanadium, total | 0.0994 | 0.0200 | mg/L | 0.100 | ND | 99.4 | 75-125 | 0.0945 | 20 | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1IA0549 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Matrix Spike Dup (1IA0549-MSD1)** | | **Source: 1IA0501-01** | | Prepared: 01/13/25 15:26 Analyzed: 01/15/25 19:15 | | | | | | |
| Zinc, total | 0.335 | 0.0200 | mg/L | 0.100 | 0.246 | 88.6 | 75-125 | 1.07 | 20 | |
| **Post Spike (1IA0549-PS1)** | | **Source: 1IA0501-01** | | Prepared: 01/13/25 15:26 Analyzed: 01/16/25 10:39 | | | | | | |
| Antimony, total | 0.0718 | | mg/L | 0.0800 | 0.0007 | 88.9 | 80-120 | | | |
| Arsenic, total | 0.0718 | | mg/L | 0.0800 | 0.0006 | 89.0 | 80-120 | | | |
| Barium, total | 0.0752 | | mg/L | 0.0800 | 0.0062 | 86.3 | 80-120 | | | |
| Beryllium, total | 0.0737 | | mg/L | 0.0800 | 0.00001 | 92.1 | 80-120 | | | |
| Cadmium, total | 0.0690 | | mg/L | 0.0800 | 0.00008 | 86.1 | 80-120 | | | |
| Chromium, total | 0.0757 | | mg/L | 0.0800 | 0.0026 | 91.4 | 80-120 | | | |
| Cobalt, total | 0.0790 | | mg/L | 0.0800 | 0.0003 | 98.5 | 80-120 | | | |
| Copper, total | 0.287 | | mg/L | 0.0800 | 0.202 | 106 | 80-120 | | | |
| Lead, total | 0.0719 | | mg/L | 0.0800 | 0.0043 | 84.4 | 80-120 | | | |
| Nickel, total | 0.0834 | | mg/L | 0.0800 | 0.0036 | 99.7 | 80-120 | | | |
| Selenium, total | 0.0658 | | mg/L | 0.0800 | -0.0004 | 82.3 | 80-120 | | | |
| Silver, total | 0.0722 | | mg/L | 0.0800 | 0.00007 | 90.1 | 80-120 | | | |
| Thallium, total | 0.0675 | | mg/L | 0.0800 | 0.00005 | 84.3 | 80-120 | | | |
| Vanadium, total | 0.0796 | | mg/L | 0.0800 | 0.0052 | 93.0 | 80-120 | | | |
| Zinc, total | 0.304 | | mg/L | 0.0800 | 0.242 | 77.7 | 80-120 | | | M2 |

**Definitions**

| | |
|---|---|
| **H:** | Sample was analyzed past holding time. |
| **M2:** | Matrix spike recovery is below acceptance limits. |
| **RL:** | Reporting Limit |
| **RPD:** | Relative Percent Difference |
| **S2:** | Surrogate recovery is below acceptance limits. |
| **ZZZPS-4X:** | The spike recovery was outside of QC acceptance limits for the Post Spike due to analyte concentration at 4 times or greater the spike concentration. |
| **ZZZQB-12:** | The analyte was found in the blank at a concentration greater than one-half the reporting limit. However, the concentration of the analyte in the blank was less than the reporting limit so the data was accepted. |
| **ZZZQM-4X:** | The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. |
| **ZZZS-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: 0.4 °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:**

Sue Thompson
Client Services Manager
01/21/25 15:36

# CHAIN OF CUSTODY RECORD

Keystone LABORATORIES
A Microbac Company

600 East 17th Street South
Newton, IA 50208
~~641-792-9451~~



www.keystonelabs.com

**SITE INFORMATION**

Sampler: JGH

Project: ~~Page Co-New Regs~~ 8047

**REPORT TO**

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

**INVOICE TO**

Tori Moreland
Page County Landfill Assoc
2032 N Ave
Clarinda, IA 51632

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

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

**LAB USE ONLY**

Work Order 1H1337

Temperature ~~3.2~~ EE RC .4

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-1D | Water | GRAB | 3/18/24 | 8:26 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 01 |
| -001 | MW-3 | Water | GRAB | 3/18/24 | 9:27 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 02 |
| -001 | MW-7 | Water | GRAB | 3/18/24 | 11:44 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 03 |
| -001 | MW-10 | Water | GRAB | 3/18/24 | 12:25 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 04 |
| -001 | MW-13 | Water | GRAB | 3/18/24 | 11:08 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 05 |
| -001 | MW-14 | Water | GRAB | 3/18/24 | 10:51 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 06 |
| -001 | MW-16 | Water | GRAB | 3/18/24 | 10:14 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 07 |

Relinquished By: [signature] Date/Time: 3/18/24

Relinquished By: ___ Date/Time: ___

Received By: ___ Date/Time: ___

Received for Lab By: [signature] Date/Time: 3/19/24 1045

Remarks:

1HC1337
HLW Engineering
PM: Heather Murphy

Original - Lab Copy Yellow - Sampler Copy

# CHAIN OF CUSTODY RECORD

Keystone LABORATORIES
A Microbac Company

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



**SITE INFORMATION**

Sampler: JeH

Project: Page Co-New Regs 6017

**REPORT TO**

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

**INVOICE TO**

Tori Moreland
Page County Landfill Assoc
2032 N Ave
Clarinda, IA 51632

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

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

**LAB USE ONLY**

Work Order EE TLO

Temperature 3.2 .4

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-17 (b) | Water | GRAB | 3/18/24 | 9:08 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 08 |
| -001 | MW-18 | Water | GRAB | 3/18/24 | 9:52 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 09 |
| -001 | MW-19 | Water | GRAB | 3/18/24 | 11:27 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 10 |
| -001 | MW-20 | Water | GRAB | 3/18/24 | 12:07 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 11 |
| -001 | GWD-1 | Water | GRAB | 3/18/24 | 10:34 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 12 |
| -001 | Duplicate | Water | GRAB | 3/18/24 | 9:52 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 13 |
| -001 | MW-44 (b) | Water | GRAB | 3/18/24 | 8:47 | 7 | lndfill-app1-voc-group | lndfll-app1-metals-6020 | 14 |

J.C Ogle 3/19/24
Relinquished By Date/Time

Relinquished By Date/Time

Received By Date/Time

Received for Lab By 3/19/24 1045 Date/Time

Rema

1HC1337
HLW Engineering
PM: Heather Murphy

Original - Lab Copy Yellow - Sampler Copy

# CHAIN OF CUSTODY RECORD

Keystone LABORATORIES
A Microbac Company

600 East 17th Street South
Newton, IA 50208
~~641-792-9451~~



**SITE INFORMATION**

Sampler: JGH

Project: ~~Page Co-New Regs~~ 6047

**REPORT TO**

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

**INVOICE TO**

Tori Moreland
Page County Landfill Assoc
2032 N Ave
Clarinda, IA 51632

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

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

**LAB USE ONLY**

Work Order

Temperature .4

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-53 - NO SAMPLE | Water | GRAB | / / | | | lndfill-app1-voc-group lndfll-app1-metals-6020 | |

Relinquished By: [signature] Date/Time: 3/18/24

Relinquished By: Date/Time:

Received By: Date/Time:

Received for Lab By: [signature] Date/Time: 3/19/24 1045

Remarks

1HC1337
HLW Engineering
PM: Heather Murphy

Original - Lab Copy Yellow - Sampler Copy

Microbac Laboratories, Inc., Newton

# CERTIFICATE OF ANALYSIS

1HH0317

Project Description

6047

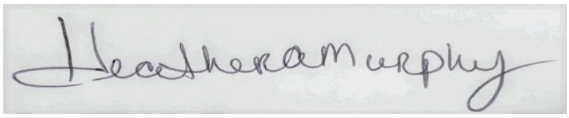
For:

Todd Whipple

**HLW Engineering**

PO Box 314

Story City, IA 50248



Heather Murphy

Customer Relationship Specialist

Wednesday, August 14, 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

1HH0317

**HLW Engineering**

Todd Whipple
PO Box 314
Story City, IA 50248

**Project Name: 6047**

Project / PO Number: N/A
Received: 08/02/2024
Reported: 08/14/2024

**Sample Summary Report**

| Sample Name | Laboratory ID | Client Matrix | Sample Type | Sample Begin | Sample Taken | Lab Received |
|---|---|---|---|---|---|---|
| MW-53 | 1HH0317-01 | Aqueous | GRAB | | 08/01/24 12:19 | 08/02/24 10:51 |
| GU 3 | 1HH0317-02 | Aqueous | GRAB | | 08/01/24 12:42 | 08/02/24 10:51 |
| GU 4 | 1HH0317-03 | Aqueous | GRAB | | 08/01/24 12:52 | 08/02/24 10:51 |

**Analytical Testing Parameters**

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-53 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HH0317-01 | **Collection Date:** | 08/01/2024 12:19 |

| 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 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-53 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HH0317-01 | **Collection Date:** | 08/01/2024 12:19 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| trans-1,4-Dichloro-2-butene | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Surrogate: Dibromofluoromethane | 99.3 | Limit: 57-134 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Surrogate: Dibromofluoromethane | 99.3 | Limit: 75-136 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 103 | Limit: 61-142 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 103 | Limit: 53-140 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Surrogate: Toluene-d8 | 99.0 | Limit: 86-114 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Surrogate: Toluene-d8 | 99.0 | Limit: 82-121 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Surrogate: 4-Bromofluorobenzene | 98.0 | Limit: 78-121 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1335 | CSM |
| Surrogate: 4-Bromofluorobenzene | 98.0 | Limit: 80-116 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1335 | 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 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Barium, total | **0.0462** | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2123 | JAR |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | GU 3 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HH0317-02 | **Collection Date:** | 08/01/2024 12:42 |

| 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 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | GU 3 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HH0317-02 | **Collection Date:** | 08/01/2024 12:42 |

| 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 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Surrogate: Dibromofluoromethane | 100 | Limit: 75-136 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Surrogate: Dibromofluoromethane | 100 | Limit: 57-134 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 104 | Limit: 53-140 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 104 | Limit: 61-142 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Surrogate: Toluene-d8 | 99.0 | Limit: 86-114 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Surrogate: Toluene-d8 | 99.0 | Limit: 82-121 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Surrogate: 4-Bromofluorobenzene | 97.3 | Limit: 80-116 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1358 | CSM |
| Surrogate: 4-Bromofluorobenzene | 97.3 | Limit: 78-121 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1358 | 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 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Barium, total | **0.287** | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Cobalt, total | **0.0004** | 0.0004 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Nickel, total | **0.0061** | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |
| Zinc, total | **0.173** | 0.0200 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2147 | JAR |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | GU 4 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HH0317-03 | **Collection Date:** | 08/01/2024 12:52 |

| 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 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | GU 4 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HH0317-03 | **Collection Date:** | 08/01/2024 12:52 |

| 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 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Surrogate: Dibromofluoromethane | 98.7 | Limit: 75-136 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Surrogate: Dibromofluoromethane | 98.7 | Limit: 57-134 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 104 | Limit: 53-140 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 104 | Limit: 61-142 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Surrogate: Toluene-d8 | 99.3 | Limit: 86-114 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Surrogate: Toluene-d8 | 99.3 | Limit: 82-121 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Surrogate: 4-Bromofluorobenzene | 97.4 | Limit: 80-116 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1421 | CSM |
| Surrogate: 4-Bromofluorobenzene | 97.4 | Limit: 78-121 | % Rec | 1 | | 08/06/24 0000 | 08/06/24 1421 | 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 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Barium, total | **0.272** | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Nickel, total | **0.0068** | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |
| Zinc, total | **0.0672** | 0.0200 | mg/L | 4 | | 08/06/24 1607 | 08/08/24 2153 | JAR |

**Batch Log Summary**

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 6020A | 1HH0285 | 1HH0285-BLK1 | |
| | | 1HH0285-BS1 | |
| | | 1HH0317-01 | MW-53 |
| | | 1HH0285-MS1 | 1HH0317-01 |
| | | 1HH0285-MSD1 | 1HH0317-01 |
| | | 1HH0285-PS1 | 1HH0317-01 |
| | | 1HH0317-02 | GU 3 |
| | | 1HH0317-03 | GU 4 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 8260B | 1HH0301 | 1HH0301-BS1 | |
| | | 1HH0301-BSD1 | |
| | | 1HH0301-BLK1 | |
| | | 1HH0317-01 | MW-53 |
| | | 1HH0317-02 | GU 3 |
| | | 1HH0317-03 | GU 4 |
| | | 1HH0301-MS1 | 1HH0317-01 |
| | | 1HH0301-MSD1 | 1HH0317-01 |

**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 1HH0301 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Blank (1HH0301-BLK1)** | | | Prepared: 08/06/24 00:00 Analyzed: 08/06/24 10:08 | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromomethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Chloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| Acetone | <10.0 | 10.0 | ug/L | | | | | | | |
| Methyl Iodide | <1.0 | 1.0 | ug/L | | | | | | | |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | | | | | | | |
| Methylene Chloride | <5.0 | 5.0 | ug/L | | | | | | | |
| Acrylonitrile | <5.0 | 5.0 | ug/L | | | | | | | |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | | | | | | | |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | | | | | | | |
| Bromochloromethane | <1.0 | 1.0 | ug/L | | | | | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HH0301 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Blank (1HH0301-BLK1)** | | | | Prepared: 08/06/24 00:00 Analyzed: 08/06/24 10:08 | | | | | | |
| Chloroform | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | | | | | | | |
| Benzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Trichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | | | | | | | |
| Dibromomethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | | | | | | | |
| Toluene | <1.0 | 1.0 | ug/L | | | | | | | |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | | | | | | | |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Chlorobenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Ethylbenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| Xylenes, total | <2.0 | 2.0 | ug/L | | | | | | | |
| Styrene | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromoform | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | | | | | | | |
| trans-1,4-Dichloro-2-butene | <5.0 | 5.0 | ug/L | | | | | | | |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *49.9* | | ug/L | *50.2* | | *99.4* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *49.9* | | ug/L | *50.2* | | *99.4* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *52.0* | | ug/L | *50.4* | | *103* | *61-142* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *52.0* | | ug/L | *50.4* | | *103* | *53-140* | | | |
| *Surrogate: Toluene-d8* | *50.8* | | ug/L | *50.5* | | *101* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *50.8* | | ug/L | *50.5* | | *101* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *48.4* | | ug/L | *50.2* | | *96.5* | *80-116* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *48.4* | | ug/L | *50.2* | | *96.5* | *78-121* | | | |
| **LCS (1HH0301-BS1)** | | | | Prepared: 08/06/24 00:00 Analyzed: 08/06/24 09:00 | | | | | | |
| Chloromethane | 33.77 | 1.0 | ug/L | 30.6 | | 110 | 63-155 | | | |
| Vinyl Chloride | 28.97 | 1.0 | ug/L | 30.2 | | 95.8 | 70-154 | | | |
| Bromomethane | 29.77 | 1.0 | ug/L | 28.8 | | 103 | 52-176 | | | |
| Chloroethane | 35.17 | 1.0 | ug/L | 31.6 | | 111 | 72-148 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HH0301 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **LCS (1HH0301-BS1)** | | | | Prepared: 08/06/24 00:00 Analyzed: 08/06/24 09:00 | | | | | | |
| Trichlorofluoromethane | 35.13 | 1.0 | ug/L | 32.6 | | 108 | 70-152 | | | |
| 1,1-Dichloroethylene | 49.67 | 1.0 | ug/L | 50.0 | | 99.3 | 70-148 | | | |
| Acetone | 123.3 | 10.0 | ug/L | 101 | | 122 | 43-172 | | | |
| Methyl Iodide | 98.66 | 1.0 | ug/L | 102 | | 96.8 | 69-170 | | | |
| Carbon Disulfide | 88.36 | 1.0 | ug/L | 103 | | 86.0 | 72-162 | | | |
| Methylene Chloride | 52.26 | 5.0 | ug/L | 50.0 | | 105 | 68-142 | | | |
| Acrylonitrile | 97.03 | 5.0 | ug/L | 100 | | 96.5 | 56-135 | | | |
| trans-1,2-Dichloroethylene | 51.24 | 1.0 | ug/L | 50.0 | | 102 | 66-148 | | | |
| 1,1-Dichloroethane | 54.20 | 1.0 | ug/L | 50.0 | | 108 | 66-143 | | | |
| Vinyl Acetate | 115.3 | 5.0 | ug/L | 100 | | 115 | 43-153 | | | |
| cis-1,2-Dichloroethylene | 52.63 | 1.0 | ug/L | 50.0 | | 105 | 71-149 | | | |
| 2-Butanone (MEK) | 109.7 | 10.0 | ug/L | 102 | | 108 | 52-159 | | | |
| Bromochloromethane | 48.47 | 1.0 | ug/L | 50.0 | | 96.9 | 69-143 | | | |
| Chloroform | 50.50 | 1.0 | ug/L | 50.0 | | 101 | 69-144 | | | |
| 1,1,1-Trichloroethane | 50.67 | 1.0 | ug/L | 50.0 | | 101 | 62-129 | | | |
| Carbon Tetrachloride | 52.51 | 1.0 | ug/L | 50.0 | | 105 | 63-141 | | | |
| Benzene | 51.05 | 1.0 | ug/L | 50.0 | | 102 | 71-134 | | | |
| 1,2-Dichloroethane | 52.26 | 1.0 | ug/L | 50.0 | | 105 | 72-132 | | | |
| Trichloroethylene | 51.32 | 1.0 | ug/L | 50.0 | | 103 | 71-135 | | | |
| 1,2-Dichloropropane | 54.16 | 1.0 | ug/L | 50.0 | | 108 | 69-136 | | | |
| Dibromomethane | 50.17 | 1.0 | ug/L | 50.0 | | 100 | 73-147 | | | |
| Bromodichloromethane | 53.95 | 1.0 | ug/L | 50.0 | | 108 | 68-129 | | | |
| cis-1,3-Dichloropropene | 51.56 | 1.0 | ug/L | 50.0 | | 103 | 65-134 | | | |
| 4-Methyl-2-pentanone (MIBK) | 105.0 | 5.0 | ug/L | 100 | | 105 | 58-147 | | | |
| Toluene | 49.52 | 1.0 | ug/L | 50.0 | | 99.0 | 72-133 | | | |
| trans-1,3-Dichloropropene | 51.77 | 1.0 | ug/L | 50.0 | | 104 | 67-130 | | | |
| 1,1,2-Trichloroethane | 51.10 | 1.0 | ug/L | 50.0 | | 102 | 69-135 | | | |
| Tetrachloroethylene | 50.65 | 1.0 | ug/L | 50.0 | | 101 | 69-130 | | | |
| 2-Hexanone (MBK) | 105.3 | 5.0 | ug/L | 99.3 | | 106 | 55-144 | | | |
| Dibromochloromethane | 55.16 | 1.0 | ug/L | 50.0 | | 110 | 73-127 | | | |
| 1,2-Dibromoethane | 50.78 | 1.0 | ug/L | 50.0 | | 102 | 67-132 | | | |
| Chlorobenzene | 49.42 | 1.0 | ug/L | 50.0 | | 98.8 | 72-123 | | | |
| 1,1,1,2-Tetrachloroethane | 55.89 | 1.0 | ug/L | 50.0 | | 112 | 73-127 | | | |
| Ethylbenzene | 52.59 | 1.0 | ug/L | 50.0 | | 105 | 71-127 | | | |
| Xylenes, total | 161.7 | 2.0 | ug/L | 150 | | 108 | 74-127 | | | |
| Styrene | 56.01 | 1.0 | ug/L | 50.0 | | 112 | 66-126 | | | |
| Bromoform | 52.60 | 1.0 | ug/L | 50.0 | | 105 | 68-130 | | | |
| 1,2,3-Trichloropropane | 52.42 | 1.0 | ug/L | 50.0 | | 105 | 63-136 | | | |
| trans-1,4-Dichloro-2-butene | 93.96 | 5.0 | ug/L | 103 | | 91.4 | 54-134 | | | |
| 1,1,2,2-Tetrachloroethane | 50.66 | 1.0 | ug/L | 50.0 | | 101 | 61-131 | | | |
| 1,4-Dichlorobenzene | 47.36 | 1.0 | ug/L | 50.0 | | 94.7 | 70-129 | | | |
| 1,2-Dichlorobenzene | 50.64 | 1.0 | ug/L | 50.0 | | 101 | 69-126 | | | |
| 1,2-Dibromo-3-chloropropane | 54.80 | 5.0 | ug/L | 50.0 | | 110 | 50-143 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HH0301 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **LCS (1HH0301-BS1)** | | | | Prepared: 08/06/24 00:00 Analyzed: 08/06/24 09:00 | | | | | | |
| *Surrogate: Dibromofluoromethane* | *50.4* | | ug/L | *50.2* | | *100* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *50.4* | | ug/L | *50.2* | | *100* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *51.0* | | ug/L | *50.4* | | *101* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *51.0* | | ug/L | *50.4* | | *101* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *50.6* | | ug/L | *50.5* | | *100* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *50.6* | | ug/L | *50.5* | | *100* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.5* | | ug/L | *50.2* | | *101* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.5* | | ug/L | *50.2* | | *101* | *80-116* | | | |
| **LCS Dup (1HH0301-BSD1)** | | | | Prepared: 08/06/24 00:00 Analyzed: 08/06/24 09:23 | | | | | | |
| Chloromethane | 31.05 | 1.0 | ug/L | 30.6 | | 101 | 63-155 | 8.39 | 24 | |
| Vinyl Chloride | 27.14 | 1.0 | ug/L | 30.2 | | 89.8 | 70-154 | 6.52 | 25 | |
| Bromomethane | 27.67 | 1.0 | ug/L | 28.8 | | 96.1 | 52-176 | 7.31 | 27 | |
| Chloroethane | 33.05 | 1.0 | ug/L | 31.6 | | 104 | 72-148 | 6.22 | 25 | |
| Trichlorofluoromethane | 32.41 | 1.0 | ug/L | 32.6 | | 99.4 | 70-152 | 8.05 | 26 | |
| 1,1-Dichloroethylene | 46.14 | 1.0 | ug/L | 50.0 | | 92.3 | 70-148 | 7.37 | 24 | |
| Acetone | 119.4 | 10.0 | ug/L | 101 | | 118 | 43-172 | 3.27 | 30 | |
| Methyl Iodide | 95.70 | 1.0 | ug/L | 102 | | 93.9 | 69-170 | 3.05 | 30 | |
| Carbon Disulfide | 81.19 | 1.0 | ug/L | 103 | | 79.1 | 72-162 | 8.46 | 24 | |
| Methylene Chloride | 50.67 | 5.0 | ug/L | 50.0 | | 101 | 68-142 | 3.09 | 21 | |
| Acrylonitrile | 96.74 | 5.0 | ug/L | 100 | | 96.3 | 56-135 | 0.299 | 16 | |
| trans-1,2-Dichloroethylene | 47.99 | 1.0 | ug/L | 50.0 | | 96.0 | 66-148 | 6.55 | 27 | |
| 1,1-Dichloroethane | 50.84 | 1.0 | ug/L | 50.0 | | 102 | 66-143 | 6.40 | 24 | |
| Vinyl Acetate | 116.4 | 5.0 | ug/L | 100 | | 116 | 43-153 | 0.924 | 30 | |
| cis-1,2-Dichloroethylene | 50.24 | 1.0 | ug/L | 50.0 | | 100 | 71-149 | 4.65 | 26 | |
| 2-Butanone (MEK) | 97.82 | 10.0 | ug/L | 102 | | 96.1 | 52-159 | 11.4 | 27 | |
| Bromochloromethane | 46.98 | 1.0 | ug/L | 50.0 | | 94.0 | 69-143 | 3.12 | 23 | |
| Chloroform | 47.81 | 1.0 | ug/L | 50.0 | | 95.6 | 69-144 | 5.47 | 23 | |
| 1,1,1-Trichloroethane | 47.59 | 1.0 | ug/L | 50.0 | | 95.2 | 62-129 | 6.27 | 24 | |
| Carbon Tetrachloride | 48.21 | 1.0 | ug/L | 50.0 | | 96.4 | 63-141 | 8.54 | 25 | |
| Benzene | 48.15 | 1.0 | ug/L | 50.0 | | 96.3 | 71-134 | 5.85 | 24 | |
| 1,2-Dichloroethane | 50.41 | 1.0 | ug/L | 50.0 | | 101 | 72-132 | 3.60 | 24 | |
| Trichloroethylene | 48.34 | 1.0 | ug/L | 50.0 | | 96.7 | 71-135 | 5.98 | 24 | |
| 1,2-Dichloropropane | 52.22 | 1.0 | ug/L | 50.0 | | 104 | 69-136 | 3.65 | 24 | |
| Dibromomethane | 50.05 | 1.0 | ug/L | 50.0 | | 100 | 73-147 | 0.239 | 25 | |
| Bromodichloromethane | 51.90 | 1.0 | ug/L | 50.0 | | 104 | 68-129 | 3.87 | 22 | |
| cis-1,3-Dichloropropene | 49.98 | 1.0 | ug/L | 50.0 | | 100 | 65-134 | 3.11 | 23 | |
| 4-Methyl-2-pentanone (MIBK) | 105.2 | 5.0 | ug/L | 100 | | 105 | 58-147 | 0.257 | 27 | |
| Toluene | 46.91 | 1.0 | ug/L | 50.0 | | 93.8 | 72-133 | 5.41 | 24 | |
| trans-1,3-Dichloropropene | 52.00 | 1.0 | ug/L | 50.0 | | 104 | 67-130 | 0.443 | 24 | |
| 1,1,2-Trichloroethane | 51.63 | 1.0 | ug/L | 50.0 | | 103 | 69-135 | 1.03 | 23 | |
| Tetrachloroethylene | 47.49 | 1.0 | ug/L | 50.0 | | 95.0 | 69-130 | 6.44 | 25 | |
| 2-Hexanone (MBK) | 106.0 | 5.0 | ug/L | 99.3 | | 107 | 55-144 | 0.653 | 25 | |
| Dibromochloromethane | 54.03 | 1.0 | ug/L | 50.0 | | 108 | 73-127 | 2.07 | 22 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HH0301 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **LCS Dup (1HH0301-BSD1)** | | | | Prepared: 08/06/24 00:00 Analyzed: 08/06/24 09:23 | | | | | | |
| 1,2-Dibromoethane | 50.64 | 1.0 | ug/L | 50.0 | | 101 | 67-132 | 0.276 | 24 | |
| Chlorobenzene | 47.27 | 1.0 | ug/L | 50.0 | | 94.5 | 72-123 | 4.45 | 23 | |
| 1,1,1,2-Tetrachloroethane | 52.13 | 1.0 | ug/L | 50.0 | | 104 | 73-127 | 6.96 | 24 | |
| Ethylbenzene | 49.75 | 1.0 | ug/L | 50.0 | | 99.5 | 71-127 | 5.55 | 26 | |
| Xylenes, total | 152.4 | 2.0 | ug/L | 150 | | 102 | 74-127 | 5.93 | 25 | |
| Styrene | 52.64 | 1.0 | ug/L | 50.0 | | 105 | 66-126 | 6.20 | 23 | |
| Bromoform | 51.74 | 1.0 | ug/L | 50.0 | | 103 | 68-130 | 1.65 | 23 | |
| 1,2,3-Trichloropropane | 51.33 | 1.0 | ug/L | 50.0 | | 103 | 63-136 | 2.10 | 24 | |
| trans-1,4-Dichloro-2-butene | 93.82 | 5.0 | ug/L | 103 | | 91.3 | 54-134 | 0.149 | 27 | |
| 1,1,2,2-Tetrachloroethane | 50.26 | 1.0 | ug/L | 50.0 | | 101 | 61-131 | 0.793 | 29 | |
| 1,4-Dichlorobenzene | 45.71 | 1.0 | ug/L | 50.0 | | 91.4 | 70-129 | 3.55 | 24 | |
| 1,2-Dichlorobenzene | 49.59 | 1.0 | ug/L | 50.0 | | 99.2 | 69-126 | 2.10 | 26 | |
| 1,2-Dibromo-3-chloropropane | 55.16 | 5.0 | ug/L | 50.0 | | 110 | 50-143 | 0.655 | 30 | |
| *Surrogate: Dibromofluoromethane* | *50.6* | | ug/L | *50.2* | | *101* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *50.6* | | ug/L | *50.2* | | *101* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *50.8* | | ug/L | *50.4* | | *101* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *50.8* | | ug/L | *50.4* | | *101* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *51.0* | | ug/L | *50.5* | | *101* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *51.0* | | ug/L | *50.5* | | *101* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *51.6* | | ug/L | *50.2* | | *103* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *51.6* | | ug/L | *50.2* | | *103* | *80-116* | | | |
| **Matrix Spike (1HH0301-MS1)** | **Source: 1HH0317-01** | | | Prepared: 08/06/24 00:00 Analyzed: 08/06/24 20:45 | | | | | | |
| Chloromethane | 295.0 | 10.0 | ug/L | 306 | ND | 96.3 | 61-152 | | | |
| Vinyl Chloride | 255.9 | 10.0 | ug/L | 302 | ND | 84.7 | 66-149 | | | |
| Bromomethane | 269.6 | 10.0 | ug/L | 288 | ND | 93.6 | 43-171 | | | |
| Chloroethane | 319.4 | 10.0 | ug/L | 316 | ND | 101 | 69-148 | | | |
| Trichlorofluoromethane | 317.3 | 10.0 | ug/L | 326 | ND | 97.3 | 62-163 | | | |
| 1,1-Dichloroethylene | 456.8 | 10.0 | ug/L | 500 | ND | 91.4 | 70-148 | | | |
| Acetone | 1091 | 100 | ug/L | 1010 | ND | 108 | 45-173 | | | |
| Methyl Iodide | 828.9 | 10.0 | ug/L | 1020 | ND | 81.4 | 62-167 | | | |
| Carbon Disulfide | 775.5 | 10.0 | ug/L | 1030 | ND | 75.5 | 71-163 | | | |
| Methylene Chloride | 463.8 | 50.0 | ug/L | 500 | ND | 92.8 | 69-140 | | | |
| Acrylonitrile | 911.4 | 50.0 | ug/L | 1000 | ND | 90.7 | 38-147 | | | |
| trans-1,2-Dichloroethylene | 460.1 | 10.0 | ug/L | 500 | ND | 92.0 | 69-144 | | | |
| 1,1-Dichloroethane | 477.9 | 10.0 | ug/L | 500 | ND | 95.6 | 70-138 | | | |
| Vinyl Acetate | 1134 | 50.0 | ug/L | 1000 | ND | 113 | 58-142 | | | |
| cis-1,2-Dichloroethylene | 520.7 | 10.0 | ug/L | 500 | ND | 104 | 68-151 | | | |
| 2-Butanone (MEK) | 940.6 | 100 | ug/L | 1020 | ND | 92.4 | 50-160 | | | |
| Bromochloromethane | 451.2 | 10.0 | ug/L | 500 | ND | 90.2 | 65-143 | | | |
| Chloroform | 449.4 | 10.0 | ug/L | 500 | ND | 89.9 | 71-143 | | | |
| 1,1,1-Trichloroethane | 457.0 | 10.0 | ug/L | 500 | ND | 91.4 | 63-133 | | | |
| Carbon Tetrachloride | 444.4 | 10.0 | ug/L | 500 | ND | 88.9 | 63-142 | | | |
| Benzene | 474.0 | 10.0 | ug/L | 500 | ND | 94.8 | 69-133 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HH0301 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Matrix Spike (1HH0301-MS1)** | **Source: 1HH0317-01** | Prepared: 08/06/24 00:00 Analyzed: 08/06/24 20:45 | | | | | | | | |
| 1,2-Dichloroethane | 486.5 | 10.0 | ug/L | 500 | ND | 97.3 | 63-138 | | | |
| Trichloroethylene | 471.9 | 10.0 | ug/L | 500 | ND | 94.4 | 71-133 | | | |
| 1,2-Dichloropropane | 509.7 | 10.0 | ug/L | 500 | ND | 102 | 69-132 | | | |
| Dibromomethane | 484.2 | 10.0 | ug/L | 500 | ND | 96.8 | 70-147 | | | |
| Bromodichloromethane | 489.8 | 10.0 | ug/L | 500 | ND | 98.0 | 67-130 | | | |
| cis-1,3-Dichloropropene | 464.4 | 10.0 | ug/L | 500 | ND | 92.9 | 61-126 | | | |
| 4-Methyl-2-pentanone (MIBK) | 999.3 | 50.0 | ug/L | 1000 | ND | 99.8 | 55-147 | | | |
| Toluene | 459.0 | 10.0 | ug/L | 500 | ND | 91.8 | 71-133 | | | |
| trans-1,3-Dichloropropene | 482.0 | 10.0 | ug/L | 500 | ND | 96.4 | 63-124 | | | |
| 1,1,2-Trichloroethane | 494.6 | 10.0 | ug/L | 500 | ND | 98.9 | 69-133 | | | |
| Tetrachloroethylene | 474.1 | 10.0 | ug/L | 500 | ND | 94.8 | 70-124 | | | |
| 2-Hexanone (MBK) | 1016 | 50.0 | ug/L | 993 | ND | 102 | 53-141 | | | |
| Dibromochloromethane | 519.8 | 10.0 | ug/L | 500 | ND | 104 | 74-122 | | | |
| 1,2-Dibromoethane | 488.9 | 10.0 | ug/L | 500 | ND | 97.8 | 66-127 | | | |
| Chlorobenzene | 465.1 | 10.0 | ug/L | 500 | ND | 93.0 | 76-116 | | | |
| 1,1,1,2-Tetrachloroethane | 507.5 | 10.0 | ug/L | 500 | ND | 102 | 77-121 | | | |
| Ethylbenzene | 490.5 | 10.0 | ug/L | 500 | ND | 98.1 | 73-124 | | | |
| Xylenes, total | 1503 | 20.0 | ug/L | 1500 | ND | 100 | 75-123 | | | |
| Styrene | 513.8 | 10.0 | ug/L | 500 | ND | 103 | 70-120 | | | |
| Bromoform | 485.7 | 10.0 | ug/L | 500 | ND | 97.1 | 70-124 | | | |
| 1,2,3-Trichloropropane | 492.9 | 10.0 | ug/L | 500 | ND | 98.6 | 62-135 | | | |
| trans-1,4-Dichloro-2-butene | 877.3 | 50.0 | ug/L | 1030 | ND | 85.3 | 50-120 | | | |
| 1,1,2,2-Tetrachloroethane | 491.1 | 10.0 | ug/L | 500 | ND | 98.2 | 63-126 | | | |
| 1,4-Dichlorobenzene | 443.1 | 10.0 | ug/L | 500 | ND | 88.6 | 72-119 | | | |
| 1,2-Dichlorobenzene | 475.0 | 10.0 | ug/L | 500 | ND | 95.0 | 71-117 | | | |
| 1,2-Dibromo-3-chloropropane | 514.4 | 50.0 | ug/L | 500 | ND | 103 | 49-134 | | | |
| *Surrogate: Dibromofluoromethane* | *472* | | ug/L | *502* | | *94.1* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *472* | | ug/L | *502* | | *94.1* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *492* | | ug/L | *504* | | *97.8* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *492* | | ug/L | *504* | | *97.8* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *499* | | ug/L | *505* | | *98.9* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *499* | | ug/L | *505* | | *98.9* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *496* | | ug/L | *502* | | *98.9* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *496* | | ug/L | *502* | | *98.9* | *80-116* | | | |
| **Matrix Spike Dup (1HH0301-MSD1)** | **Source: 1HH0317-01** | Prepared: 08/06/24 00:00 Analyzed: 08/06/24 21:08 | | | | | | | | |
| Chloromethane | 319.3 | 10.0 | ug/L | 306 | ND | 104 | 61-152 | 7.91 | 26 | |
| Vinyl Chloride | 278.8 | 10.0 | ug/L | 302 | ND | 92.2 | 66-149 | 8.57 | 23 | |
| Bromomethane | 279.8 | 10.0 | ug/L | 288 | ND | 97.2 | 43-171 | 3.71 | 29 | |
| Chloroethane | 341.0 | 10.0 | ug/L | 316 | ND | 108 | 69-148 | 6.54 | 25 | |
| Trichlorofluoromethane | 346.0 | 10.0 | ug/L | 326 | ND | 106 | 62-163 | 8.65 | 25 | |
| 1,1-Dichloroethylene | 497.9 | 10.0 | ug/L | 500 | ND | 99.6 | 70-148 | 8.61 | 22 | |
| Acetone | 1110 | 100 | ug/L | 1010 | ND | 110 | 45-173 | 1.74 | 30 | |
| Methyl Iodide | 939.1 | 10.0 | ug/L | 1020 | ND | 92.2 | 62-167 | 12.5 | 24 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HH0301 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Matrix Spike Dup (1HH0301-MSD1)** | **Source: 1HH0317-01** | Prepared: 08/06/24 00:00 Analyzed: 08/06/24 21:08 | | | | | | | | |
| Carbon Disulfide | 833.9 | 10.0 | ug/L | 1030 | ND | 81.2 | 71-163 | 7.26 | 22 | |
| Methylene Chloride | 489.9 | 50.0 | ug/L | 500 | ND | 98.0 | 69-140 | 5.47 | 19 | |
| Acrylonitrile | 925.1 | 50.0 | ug/L | 1000 | ND | 92.0 | 38-147 | 1.49 | 30 | |
| trans-1,2-Dichloroethylene | 490.1 | 10.0 | ug/L | 500 | ND | 98.0 | 69-144 | 6.31 | 22 | |
| 1,1-Dichloroethane | 507.7 | 10.0 | ug/L | 500 | ND | 102 | 70-138 | 6.05 | 20 | |
| Vinyl Acetate | 1125 | 50.0 | ug/L | 1000 | ND | 112 | 58-142 | 0.841 | 24 | |
| cis-1,2-Dichloroethylene | 542.1 | 10.0 | ug/L | 500 | ND | 108 | 68-151 | 4.03 | 22 | |
| 2-Butanone (MEK) | 972.6 | 100 | ug/L | 1020 | ND | 95.5 | 50-160 | 3.35 | 23 | |
| Bromochloromethane | 470.0 | 10.0 | ug/L | 500 | ND | 94.0 | 65-143 | 4.08 | 22 | |
| Chloroform | 471.6 | 10.0 | ug/L | 500 | ND | 94.3 | 71-143 | 4.82 | 21 | |
| 1,1,1-Trichloroethane | 489.3 | 10.0 | ug/L | 500 | ND | 97.9 | 63-133 | 6.83 | 23 | |
| Carbon Tetrachloride | 484.7 | 10.0 | ug/L | 500 | ND | 96.9 | 63-142 | 8.68 | 22 | |
| Benzene | 496.4 | 10.0 | ug/L | 500 | ND | 99.3 | 69-133 | 4.62 | 18 | |
| 1,2-Dichloroethane | 509.3 | 10.0 | ug/L | 500 | ND | 102 | 63-138 | 4.58 | 20 | |
| Trichloroethylene | 499.0 | 10.0 | ug/L | 500 | ND | 99.8 | 71-133 | 5.58 | 23 | |
| 1,2-Dichloropropane | 519.7 | 10.0 | ug/L | 500 | ND | 104 | 69-132 | 1.94 | 20 | |
| Dibromomethane | 488.1 | 10.0 | ug/L | 500 | ND | 97.6 | 70-147 | 0.802 | 22 | |
| Bromodichloromethane | 506.3 | 10.0 | ug/L | 500 | ND | 101 | 67-130 | 3.31 | 21 | |
| cis-1,3-Dichloropropene | 476.7 | 10.0 | ug/L | 500 | ND | 95.3 | 61-126 | 2.61 | 21 | |
| 4-Methyl-2-pentanone (MIBK) | 1033 | 50.0 | ug/L | 1000 | ND | 103 | 55-147 | 3.34 | 23 | |
| Toluene | 479.4 | 10.0 | ug/L | 500 | ND | 95.9 | 71-133 | 4.35 | 19 | |
| trans-1,3-Dichloropropene | 484.9 | 10.0 | ug/L | 500 | ND | 97.0 | 63-124 | 0.600 | 21 | |
| 1,1,2-Trichloroethane | 501.4 | 10.0 | ug/L | 500 | ND | 100 | 69-133 | 1.37 | 19 | |
| Tetrachloroethylene | 496.1 | 10.0 | ug/L | 500 | ND | 99.2 | 70-124 | 4.54 | 24 | |
| 2-Hexanone (MBK) | 1034 | 50.0 | ug/L | 993 | ND | 104 | 53-141 | 1.70 | 24 | |
| Dibromochloromethane | 537.4 | 10.0 | ug/L | 500 | ND | 107 | 74-122 | 3.33 | 21 | |
| 1,2-Dibromoethane | 495.6 | 10.0 | ug/L | 500 | ND | 99.1 | 66-127 | 1.36 | 23 | |
| Chlorobenzene | 480.5 | 10.0 | ug/L | 500 | ND | 96.1 | 76-116 | 3.26 | 21 | |
| 1,1,1,2-Tetrachloroethane | 530.6 | 10.0 | ug/L | 500 | ND | 106 | 77-121 | 4.45 | 25 | |
| Ethylbenzene | 515.7 | 10.0 | ug/L | 500 | ND | 103 | 73-124 | 5.01 | 20 | |
| Xylenes, total | 1569 | 20.0 | ug/L | 1500 | ND | 105 | 75-123 | 4.33 | 20 | |
| Styrene | 539.8 | 10.0 | ug/L | 500 | ND | 108 | 70-120 | 4.94 | 23 | |
| Bromoform | 504.1 | 10.0 | ug/L | 500 | ND | 101 | 70-124 | 3.72 | 22 | |
| 1,2,3-Trichloropropane | 521.7 | 10.0 | ug/L | 500 | ND | 104 | 62-135 | 5.68 | 28 | |
| trans-1,4-Dichloro-2-butene | 896.6 | 50.0 | ug/L | 1030 | ND | 87.2 | 50-120 | 2.18 | 26 | |
| 1,1,2,2-Tetrachloroethane | 497.1 | 10.0 | ug/L | 500 | ND | 99.4 | 63-126 | 1.21 | 24 | |
| 1,4-Dichlorobenzene | 453.6 | 10.0 | ug/L | 500 | ND | 90.7 | 72-119 | 2.34 | 24 | |
| 1,2-Dichlorobenzene | 486.7 | 10.0 | ug/L | 500 | ND | 97.3 | 71-117 | 2.43 | 24 | |
| 1,2-Dibromo-3-chloropropane | 519.2 | 50.0 | ug/L | 500 | ND | 104 | 49-134 | 0.929 | 28 | |
| *Surrogate: Dibromofluoromethane* | *472* | | ug/L | *502* | | *94.1* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *472* | | ug/L | *502* | | *94.1* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *500* | | ug/L | *504* | | *99.3* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *500* | | ug/L | *504* | | *99.3* | *61-142* | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HH0301 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Matrix Spike Dup (1HH0301-MSD1)** | **Source: 1HH0317-01** | | Prepared: 08/06/24 00:00 Analyzed: 08/06/24 21:08 | | | | | | | |
| *Surrogate: Toluene-d8* | *502* | | ug/L | *505* | | *99.4* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *502* | | ug/L | *505* | | *99.4* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *514* | | ug/L | *502* | | *102* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *514* | | ug/L | *502* | | *102* | *80-116* | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HH0285 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Blank (1HH0285-BLK1)** | | | Prepared: 08/06/24 16:07 Analyzed: 08/08/24 20:46 | | | | | | | |
| 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 (1HH0285-BS1)** | | | Prepared: 08/06/24 16:07 Analyzed: 08/08/24 20:52 | | | | | | | |
| Antimony, total | 0.0924 | 0.0020 | mg/L | 0.100 | | 92.4 | 80-120 | | | |
| Arsenic, total | 0.0918 | 0.0040 | mg/L | 0.100 | | 91.8 | 80-120 | | | |
| Barium, total | 0.103 | 0.0040 | mg/L | 0.100 | | 103 | 80-120 | | | |
| Beryllium, total | 0.0947 | 0.0040 | mg/L | 0.100 | | 94.7 | 80-120 | | | |
| Cadmium, total | 0.0934 | 0.0008 | mg/L | 0.100 | | 93.4 | 80-120 | | | |
| Chromium, total | 0.0971 | 0.0080 | mg/L | 0.100 | | 97.1 | 80-120 | | | |
| Cobalt, total | 0.101 | 0.0004 | mg/L | 0.100 | | 101 | 80-120 | | | |
| Copper, total | 0.103 | 0.0040 | mg/L | 0.100 | | 103 | 80-120 | | | |
| Lead, total | 0.0975 | 0.0040 | mg/L | 0.100 | | 97.5 | 80-120 | | | |
| Nickel, total | 0.100 | 0.0040 | mg/L | 0.100 | | 100 | 80-120 | | | |
| Selenium, total | 0.0866 | 0.0040 | mg/L | 0.100 | | 86.6 | 80-120 | | | |
| Silver, total | 0.0979 | 0.0040 | mg/L | 0.100 | | 97.9 | 80-120 | | | |
| Thallium, total | 0.0972 | 0.0020 | mg/L | 0.100 | | 97.2 | 80-120 | | | |
| Vanadium, total | 0.0997 | 0.0200 | mg/L | 0.100 | | 99.7 | 80-120 | | | |
| Zinc, total | 0.0882 | 0.0200 | mg/L | 0.100 | | 88.2 | 80-120 | | | |
| **Matrix Spike (1HH0285-MS1)** | **Source: 1HH0317-01** | | Prepared: 08/06/24 16:07 Analyzed: 08/08/24 21:29 | | | | | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HH0285 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Matrix Spike (1HH0285-MS1)** | | **Source: 1HH0317-01** | | Prepared: 08/06/24 16:07 Analyzed: 08/08/24 21:29 | | | | | | |
| Antimony, total | 0.0900 | 0.0020 | mg/L | 0.100 | ND | 90.0 | 75-125 | | | |
| Arsenic, total | 0.0936 | 0.0040 | mg/L | 0.100 | 0.0016 | 91.9 | 75-125 | | | |
| Barium, total | 0.147 | 0.0040 | mg/L | 0.100 | 0.0462 | 101 | 75-125 | | | |
| Beryllium, total | 0.0886 | 0.0040 | mg/L | 0.100 | ND | 88.6 | 75-125 | | | |
| Cadmium, total | 0.0877 | 0.0008 | mg/L | 0.100 | ND | 87.7 | 75-125 | | | |
| Chromium, total | 0.0931 | 0.0080 | mg/L | 0.100 | 0.0008 | 92.3 | 75-125 | | | |
| Cobalt, total | 0.0990 | 0.0004 | mg/L | 0.100 | 0.0003 | 98.7 | 75-125 | | | |
| Copper, total | 0.0916 | 0.0040 | mg/L | 0.100 | 0.0017 | 89.9 | 75-125 | | | |
| Lead, total | 0.0901 | 0.0040 | mg/L | 0.100 | ND | 90.1 | 75-125 | | | |
| Nickel, total | 0.0974 | 0.0040 | mg/L | 0.100 | 0.0018 | 95.6 | 75-125 | | | |
| Selenium, total | 0.0880 | 0.0040 | mg/L | 0.100 | ND | 88.0 | 75-125 | | | |
| Silver, total | 0.0916 | 0.0040 | mg/L | 0.100 | ND | 91.6 | 75-125 | | | |
| Thallium, total | 0.0913 | 0.0020 | mg/L | 0.100 | ND | 91.3 | 75-125 | | | |
| Vanadium, total | 0.102 | 0.0200 | mg/L | 0.100 | ND | 102 | 75-125 | | | |
| Zinc, total | 0.0828 | 0.0200 | mg/L | 0.100 | ND | 82.8 | 75-125 | | | |
| **Matrix Spike Dup (1HH0285-MSD1)** | | **Source: 1HH0317-01** | | Prepared: 08/06/24 16:07 Analyzed: 08/08/24 21:35 | | | | | | |
| Antimony, total | 0.0937 | 0.0020 | mg/L | 0.100 | ND | 93.7 | 75-125 | 4.03 | 20 | |
| Arsenic, total | 0.0973 | 0.0040 | mg/L | 0.100 | 0.0016 | 95.6 | 75-125 | 3.88 | 20 | |
| Barium, total | 0.154 | 0.0040 | mg/L | 0.100 | 0.0462 | 108 | 75-125 | 4.71 | 20 | |
| Beryllium, total | 0.0919 | 0.0040 | mg/L | 0.100 | ND | 91.9 | 75-125 | 3.67 | 20 | |
| Cadmium, total | 0.0915 | 0.0008 | mg/L | 0.100 | ND | 91.5 | 75-125 | 4.34 | 20 | |
| Chromium, total | 0.0978 | 0.0080 | mg/L | 0.100 | 0.0008 | 97.1 | 75-125 | 4.98 | 20 | |
| Cobalt, total | 0.103 | 0.0004 | mg/L | 0.100 | 0.0003 | 102 | 75-125 | 3.69 | 20 | |
| Copper, total | 0.0954 | 0.0040 | mg/L | 0.100 | 0.0017 | 93.7 | 75-125 | 4.04 | 20 | |
| Lead, total | 0.0934 | 0.0040 | mg/L | 0.100 | ND | 93.4 | 75-125 | 3.58 | 20 | |
| Nickel, total | 0.101 | 0.0040 | mg/L | 0.100 | 0.0018 | 99.2 | 75-125 | 3.68 | 20 | |
| Selenium, total | 0.0887 | 0.0040 | mg/L | 0.100 | ND | 88.7 | 75-125 | 0.785 | 20 | |
| Silver, total | 0.0964 | 0.0040 | mg/L | 0.100 | ND | 96.4 | 75-125 | 5.05 | 20 | |
| Thallium, total | 0.0958 | 0.0020 | mg/L | 0.100 | ND | 95.8 | 75-125 | 4.79 | 20 | |
| Vanadium, total | 0.105 | 0.0200 | mg/L | 0.100 | ND | 105 | 75-125 | 3.20 | 20 | |
| Zinc, total | 0.0874 | 0.0200 | mg/L | 0.100 | ND | 87.4 | 75-125 | 5.29 | 20 | |
| **Post Spike (1HH0285-PS1)** | | **Source: 1HH0317-01** | | Prepared: 08/06/24 16:07 Analyzed: 08/08/24 21:41 | | | | | | |
| Antimony, total | 0.0733 | | mg/L | 0.0800 | 0.0001 | 91.5 | 80-120 | | | |
| Arsenic, total | 0.0763 | | mg/L | 0.0800 | 0.0016 | 93.4 | 80-120 | | | |
| Barium, total | 0.125 | | mg/L | 0.0800 | 0.0452 | 100 | 80-120 | | | |
| Beryllium, total | 0.0718 | | mg/L | 0.0800 | 0.00002 | 89.8 | 80-120 | | | |
| Cadmium, total | 0.0710 | | mg/L | 0.0800 | 0.00006 | 88.7 | 80-120 | | | |
| Chromium, total | 0.0764 | | mg/L | 0.0800 | 0.0007 | 94.6 | 80-120 | | | |
| Cobalt, total | 0.0806 | | mg/L | 0.0800 | 0.0003 | 100 | 80-120 | | | |
| Copper, total | 0.0746 | | mg/L | 0.0800 | 0.0016 | 91.2 | 80-120 | | | |
| Lead, total | 0.0740 | | mg/L | 0.0800 | 0.0001 | 92.4 | 80-120 | | | |
| Nickel, total | 0.0792 | | mg/L | 0.0800 | 0.0018 | 96.8 | 80-120 | | | |
| Selenium, total | 0.0659 | | mg/L | 0.0800 | 0.0005 | 81.8 | 80-120 | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HH0285 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Post Spike (1HH0285-PS1)** | **Source: 1HH0317-01** | | Prepared: 08/06/24 16:07 Analyzed: 08/08/24 21:41 | | | | | | | |
| Silver, total | 0.0744 | | mg/L | 0.0800 | 0.0003 | 92.6 | 80-120 | | | |
| Thallium, total | 0.0749 | | mg/L | 0.0800 | 0.00003 | 93.6 | 80-120 | | | |
| Vanadium, total | 0.0847 | | mg/L | 0.0800 | 0.0059 | 98.5 | 80-120 | | | |
| Zinc, total | 0.0669 | | mg/L | 0.0800 | 0.0023 | 80.8 | 80-120 | | | |

**Definitions**

**RL:** Reporting Limit
**RPD:** Relative Percent Difference

**Cooler Receipt Log**

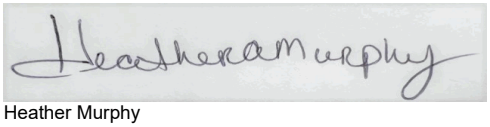
**Cooler ID:** Default Cooler Temp: 0.0°C

**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 Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
08/14/24 16:05

# CHAIN OF CUSTODY RECORD

**Keystone LABORATORIES, INC.**

600 E. 17th St. S.
Newton, IA 50208
Phone: 641-792-845
Fax: 641-792-798

1 H H 0 3 1 7
HLW Engineering
PM: Heather Murphy

S 66105
1-7856
1-6778

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: IGH
SITE NAME; PAGE Co SLF
ADDRESS:
CITY/ST/ZIP:
PHONE:

**REPORT TO:**

NAME: TODD WHIPPLE
COMPANY NAME: HLW ENGINEERING
ADDRESS: PO BOX 314
CITY/ST/ZIP: STORY CITY, IA 50248
PHONE: 515-733-4144
FAX: 515-733-4146

**BILL TO:**

NAME: BRIAN WARD
COMPANY NAME: PAGE Co SLF
ADDRESS: 2032 N AVE
CITY/ST/ZIP: CLARINDA, IA 51632
PHONE:

Keystone Quote No: (If Applicable)

| CLIENT SAMPLE NUMBER | DATE | TIME | SAMPLE LOCATION | NO. OF CONTAINERS | MATRIX | GRAB/COMPOSITE | ANALYSES REQUIRED: LANDFILL APP I - METALS - Gw/LD | | ANALYSES REQUIRED: LANDFILL APP I - VOC - GRAB? | | | | | LAB USE ONLY: LABORATORY SAMPLE NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW 53 | 8/1/24 | 12:19 | | | | | X | | X | | | | | 01 |
| | | | | | | | | | | | | | | |
| GU 3 | 8/1/24 | 12:42 | | | | | X | | X | | | | | 02 |
| | 8/1/24 | | | | | | | | | | | | | |
| GU 4 | ~~12:52~~ | 12:52 | | | | | X | | X | | | | | 03 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

LAB USE ONLY
LABORATORY WORK ORDER NO. 1HH0317
SAMPLE TEMPERATURE UPON RECEIPT: 0.0 °C
SAMPLE CONDITION/COMMENTS

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: (Signature) | Date 8/2/24 Time 10:51 | Received by: (Signature) | Date Time | Turn-Around: ☐ Standard ☐ Rush ____ Contact Lab Prior to Submission | |
| Relinquished by: (Signature) | Date Time | Received for Lab by: (Signature) | Date 8/2/24 Time 10:51 | Remarks: | |

Original - Lab Copy • Yellow - Sampler Copy

FORM: CCR 7-97

Microbac Laboratories, Inc., Newton

# CERTIFICATE OF ANALYSIS

1HI1877

Project Description

6047

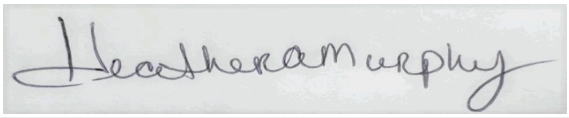
For:

Todd Whipple

**HLW Engineering**

204 West Broad St

Story City, IA 50248



Heather Murphy

Customer Relationship Specialist

Friday, October 11, 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

1HI1877

**HLW Engineering**

Todd Whipple
204 West Broad St
Story City, IA 50248

**Project Name: 6047**

Project / PO Number: N/A
Received: 09/26/2024
Reported: 10/11/2024

**Sample Summary Report**

| Sample Name | Laboratory ID | Client Matrix | Sample Type | Sample Begin | Sample Taken | Lab Received |
|---|---|---|---|---|---|---|
| MW-1D | 1HI1877-01 | Aqueous | GRAB | | 09/25/24 17:13 | 09/26/24 10:03 |
| MW-3 | 1HI1877-02 | Aqueous | GRAB | | 09/25/24 16:45 | 09/26/24 10:03 |
| MW-7 | 1HI1877-03 | Aqueous | GRAB | | 09/25/24 14:59 | 09/26/24 10:03 |
| MW-10 | 1HI1877-04 | Aqueous | GRAB | | 09/25/24 18:20 | 09/26/24 10:03 |
| MW-13 | 1HI1877-05 | Aqueous | GRAB | | 09/25/24 15:15 | 09/26/24 10:03 |
| MW-14 | 1HI1877-06 | Aqueous | GRAB | | 09/25/24 15:30 | 09/26/24 10:03 |
| MW-16 | 1HI1877-07 | Aqueous | GRAB | | 09/25/24 15:53 | 09/26/24 10:03 |
| MW-17 (b) | 1HI1877-08 | Aqueous | GRAB | | 09/25/24 16:57 | 09/26/24 10:03 |
| MW-18 | 1HI1877-09 | Aqueous | GRAB | | 09/25/24 16:30 | 09/26/24 10:03 |
| MW-20 | 1HI1877-10 | Aqueous | GRAB | | 09/25/24 14:45 | 09/26/24 10:03 |
| Duplicate | 1HI1877-11 | Aqueous | GRAB | | 09/25/24 00:00 | 09/26/24 10:03 |
| MW-53 | 1HI1877-12 | Aqueous | GRAB | | 09/25/24 17:30 | 09/26/24 10:03 |
| GV-3 | 1HI1877-13 | Aqueous | GRAB | | 09/25/24 18:06 | 09/26/24 10:03 |
| GV-4 | 1HI1877-14 | Aqueous | GRAB | | 09/25/24 17:59 | 09/26/24 10:03 |

**Analytical Testing Parameters**

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-1D | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-01 | **Collection Date:** | 09/25/2024 17:13 |

| 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 | | | 10/01/24 1723 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-1D | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-01 | **Collection Date:** | 09/25/2024 17:13 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| trans-1,4-Dichloro-2-butene | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1723 | BDF |
| Surrogate: Dibromofluoromethane | 89.8 | Limit: 75-136 | % Rec | 1 | | | 10/01/24 1723 | BDF |
| Surrogate: Dibromofluoromethane | 89.8 | Limit: 57-134 | % Rec | 1 | | | 10/01/24 1723 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 102 | Limit: 53-140 | % Rec | 1 | | | 10/01/24 1723 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 102 | Limit: 61-142 | % Rec | 1 | | | 10/01/24 1723 | BDF |
| Surrogate: Toluene-d8 | 101 | Limit: 82-121 | % Rec | 1 | | | 10/01/24 1723 | BDF |
| Surrogate: Toluene-d8 | 101 | Limit: 86-114 | % Rec | 1 | | | 10/01/24 1723 | BDF |
| Surrogate: 4-Bromofluorobenzene | 103 | Limit: 80-116 | % Rec | 1 | | | 10/01/24 1723 | BDF |
| Surrogate: 4-Bromofluorobenzene | 103 | Limit: 78-121 | % Rec | 1 | | | 10/01/24 1723 | 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 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Barium, total | **0.637** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Cobalt, total | **0.0024** | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Nickel, total | **0.0113** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1123 | RVV |

CERTIFICATE OF ANALYSIS

1HI1877

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-3 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-02 | **Collection Date:** | 09/25/2024 16:45 |

| 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 | | | 10/01/24 1745 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-3 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-02 | **Collection Date:** | 09/25/2024 16:45 |

| 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 | | | 10/01/24 1745 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1745 | BDF |
| Surrogate: Dibromofluoromethane | 103 | Limit: 75-136 | % Rec | 1 | | | 10/01/24 1745 | BDF |
| Surrogate: Dibromofluoromethane | 103 | Limit: 57-134 | % Rec | 1 | | | 10/01/24 1745 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 101 | Limit: 53-140 | % Rec | 1 | | | 10/01/24 1745 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 101 | Limit: 61-142 | % Rec | 1 | | | 10/01/24 1745 | BDF |
| Surrogate: Toluene-d8 | 99.5 | Limit: 82-121 | % Rec | 1 | | | 10/01/24 1745 | BDF |
| Surrogate: Toluene-d8 | 99.5 | Limit: 86-114 | % Rec | 1 | | | 10/01/24 1745 | BDF |
| Surrogate: 4-Bromofluorobenzene | 101 | Limit: 78-121 | % Rec | 1 | | | 10/01/24 1745 | BDF |
| Surrogate: 4-Bromofluorobenzene | 101 | Limit: 80-116 | % Rec | 1 | | | 10/01/24 1745 | 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 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Barium, total | **0.295** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1740 | RVV |

CERTIFICATE OF ANALYSIS

1HI1877

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-7 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-03 | **Collection Date:** | 09/25/2024 14:59 |

| 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 | | | 10/01/24 1808 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-7 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-03 | **Collection Date:** | 09/25/2024 14:59 |

| 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 | | | 10/01/24 1808 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1808 | BDF |
| Surrogate: Dibromofluoromethane | 95.8 | Limit: 75-136 | % Rec | 1 | | | 10/01/24 1808 | BDF |
| Surrogate: Dibromofluoromethane | 95.8 | Limit: 57-134 | % Rec | 1 | | | 10/01/24 1808 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 101 | Limit: 61-142 | % Rec | 1 | | | 10/01/24 1808 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 101 | Limit: 53-140 | % Rec | 1 | | | 10/01/24 1808 | BDF |
| Surrogate: Toluene-d8 | 101 | Limit: 82-121 | % Rec | 1 | | | 10/01/24 1808 | BDF |
| Surrogate: Toluene-d8 | 101 | Limit: 86-114 | % Rec | 1 | | | 10/01/24 1808 | BDF |
| Surrogate: 4-Bromofluorobenzene | 102 | Limit: 80-116 | % Rec | 1 | | | 10/01/24 1808 | BDF |
| Surrogate: 4-Bromofluorobenzene | 102 | Limit: 78-121 | % Rec | 1 | | | 10/01/24 1808 | 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 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Arsenic, total | **0.0090** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Barium, total | **0.321** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Cobalt, total | **0.0101** | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Nickel, total | **0.0166** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1138 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-10 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-04 | **Collection Date:** | 09/25/2024 18:20 |

| 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 | | | 10/01/24 1830 | BDF |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Acrolein | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Methyl Iodide | <2.0 | 2.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Acetonitrile | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 2,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 2-Butanone (MEK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,1-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Ethyl Methacrylate | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,3-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-10 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-04 | **Collection Date:** | 09/25/2024 18:20 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| trans-1,4-Dichloro-2-butene | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,3-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,2-Dibromo-3-chloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| 1,2,4-Trichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1830 | BDF |
| Allyl chloride | <1.0 | 1.0 | ug/L | 1 | | 10/09/24 0000 | 10/09/24 1631 | BDF |
| Chloroprene | <1.0 | 1.0 | ug/L | 1 | | 10/09/24 0000 | 10/09/24 1631 | BDF |
| Methacrylonitrile | <1.0 | 1.0 | ug/L | 1 | | 10/09/24 0000 | 10/09/24 1631 | BDF |
| Methyl Methacrylate | <1.0 | 1.0 | ug/L | 1 | | 10/09/24 0000 | 10/09/24 1631 | BDF |
| Propionitrile | <10.0 | 10.0 | ug/L | 1 | | 10/09/24 0000 | 10/09/24 1631 | BDF |
| Surrogate: Dibromofluoromethane | 103 | Limit: 57-134 | % Rec | 1 | | 10/09/24 0000 | 10/09/24 1631 | BDF |
| Surrogate: Dibromofluoromethane | 95.7 | Limit: 57-134 | % Rec | 1 | | | 10/01/24 1830 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 102 | Limit: 53-140 | % Rec | 1 | | | 10/01/24 1830 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 102 | Limit: 53-140 | % Rec | 1 | | | 10/01/24 1830 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 103 | Limit: 53-140 | % Rec | 1 | | 10/09/24 0000 | 10/09/24 1631 | BDF |
| Surrogate: Toluene-d8 | 99.8 | Limit: 86-114 | % Rec | 1 | | | 10/01/24 1830 | BDF |
| Surrogate: Toluene-d8 | 99.8 | Limit: 86-114 | % Rec | 1 | | | 10/01/24 1830 | BDF |
| Surrogate: Toluene-d8 | 96.4 | Limit: 86-114 | % Rec | 1 | | 10/09/24 0000 | 10/09/24 1631 | BDF |
| Surrogate: 4-Bromofluorobenzene | 101 | Limit: 78-121 | % Rec | 1 | | | 10/01/24 1830 | BDF |
| Surrogate: 4-Bromofluorobenzene | 101 | Limit: 78-121 | % Rec | 1 | | | 10/01/24 1830 | BDF |
| Surrogate: 4-Bromofluorobenzene | 97.6 | Limit: 78-121 | % Rec | 1 | | 10/09/24 0000 | 10/09/24 1631 | BDF |

| Determination of General Solvents | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 8015C** | | | | | | | | |
| Isobutanol | <1.0 | 1.0 | mg/L | 1 | | 10/08/24 0846 | 10/09/24 2120 | PDS |

| Determination of Conventional Chemistry Parameters | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 376.2** | | | | | | | | |
| Sulfide, total | <0.10 | 0.10 | mg/L | 1 | | 10/02/24 0829 | 10/02/24 1519 | AKK |

| 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 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Arsenic, total | **0.0052** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-10 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-04 | **Collection Date:** | 09/25/2024 18:20 |

| Determination of Total Metals | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| Barium, total | **0.575** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Cobalt, total | **0.0024** | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Nickel, total | **0.0117** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Tin, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1144 | RVV |
| **EPA 7470A** | | | | | | | | |
| Mercury, total | <0.00050 | 0.00050 | mg/L | 1 | | 10/03/24 0808 | 10/04/24 1619 | JAR |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-13 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-05 | **Collection Date:** | 09/25/2024 15:15 |

| 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 | | | 10/01/24 1853 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-13 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-05 | **Collection Date:** | 09/25/2024 15:15 |

| 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 | | | 10/01/24 1853 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1853 | BDF |
| Surrogate: Dibromofluoromethane | 95.5 | Limit: 57-134 | % Rec | 1 | | | 10/01/24 1853 | BDF |
| Surrogate: Dibromofluoromethane | 95.5 | Limit: 75-136 | % Rec | 1 | | | 10/01/24 1853 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 108 | Limit: 53-140 | % Rec | 1 | | | 10/01/24 1853 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 108 | Limit: 61-142 | % Rec | 1 | | | 10/01/24 1853 | BDF |
| Surrogate: Toluene-d8 | 90.0 | Limit: 86-114 | % Rec | 1 | | | 10/01/24 1853 | BDF |
| Surrogate: Toluene-d8 | 90.0 | Limit: 82-121 | % Rec | 1 | | | 10/01/24 1853 | BDF |
| Surrogate: 4-Bromofluorobenzene | 92.7 | Limit: 78-121 | % Rec | 1 | | | 10/01/24 1853 | BDF |
| Surrogate: 4-Bromofluorobenzene | 92.7 | Limit: 80-116 | % Rec | 1 | | | 10/01/24 1853 | 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 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Barium, total | **0.0664** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1810 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-14 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-06 | **Collection Date:** | 09/25/2024 15:30 |

| 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 | | | 10/01/24 1915 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-14 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-06 | **Collection Date:** | 09/25/2024 15:30 |

| 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 | | | 10/01/24 1915 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1915 | BDF |
| Surrogate: Dibromofluoromethane | 95.7 | Limit: 57-134 | % Rec | 1 | | | 10/01/24 1915 | BDF |
| Surrogate: Dibromofluoromethane | 95.7 | Limit: 75-136 | % Rec | 1 | | | 10/01/24 1915 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 103 | Limit: 53-140 | % Rec | 1 | | | 10/01/24 1915 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 103 | Limit: 61-142 | % Rec | 1 | | | 10/01/24 1915 | BDF |
| Surrogate: Toluene-d8 | 98.5 | Limit: 82-121 | % Rec | 1 | | | 10/01/24 1915 | BDF |
| Surrogate: Toluene-d8 | 98.5 | Limit: 86-114 | % Rec | 1 | | | 10/01/24 1915 | BDF |
| Surrogate: 4-Bromofluorobenzene | 101 | Limit: 78-121 | % Rec | 1 | | | 10/01/24 1915 | BDF |
| Surrogate: 4-Bromofluorobenzene | 101 | Limit: 80-116 | % Rec | 1 | | | 10/01/24 1915 | 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 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Barium, total | **0.112** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Cadmium, total | **0.0035** | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Cobalt, total | **0.0004** | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Nickel, total | **0.0041** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1816 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-16 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-07 | **Collection Date:** | 09/25/2024 15:53 |

| 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 | | | 10/01/24 1938 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Chlorobenzene | **2.3** | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-16 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-07 | **Collection Date:** | 09/25/2024 15:53 |

| 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 | | | 10/01/24 1938 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 1938 | BDF |
| Surrogate: Dibromofluoromethane | 94.2 | Limit: 75-136 | % Rec | 1 | | | 10/01/24 1938 | BDF |
| Surrogate: Dibromofluoromethane | 94.2 | Limit: 57-134 | % Rec | 1 | | | 10/01/24 1938 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 102 | Limit: 61-142 | % Rec | 1 | | | 10/01/24 1938 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 102 | Limit: 53-140 | % Rec | 1 | | | 10/01/24 1938 | BDF |
| Surrogate: Toluene-d8 | 98.9 | Limit: 82-121 | % Rec | 1 | | | 10/01/24 1938 | BDF |
| Surrogate: Toluene-d8 | 98.9 | Limit: 86-114 | % Rec | 1 | | | 10/01/24 1938 | BDF |
| Surrogate: 4-Bromofluorobenzene | 90.4 | Limit: 80-116 | % Rec | 1 | | | 10/01/24 1938 | BDF |
| Surrogate: 4-Bromofluorobenzene | 90.4 | Limit: 78-121 | % Rec | 1 | | | 10/01/24 1938 | 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 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Arsenic, total | **0.0262** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Barium, total | **0.756** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Cobalt, total | **0.0017** | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Nickel, total | **0.0360** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1822 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-17 (b) | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-08 | **Collection Date:** | 09/25/2024 16:57 |

| 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 | | | 10/01/24 2000 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-17 (b) | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-08 | **Collection Date:** | 09/25/2024 16:57 |

| 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 | | | 10/01/24 2000 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | | 10/01/24 2000 | BDF |
| Surrogate: Dibromofluoromethane | 95.7 | Limit: 57-134 | % Rec | 1 | | | 10/01/24 2000 | BDF |
| Surrogate: Dibromofluoromethane | 95.7 | Limit: 75-136 | % Rec | 1 | | | 10/01/24 2000 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 102 | Limit: 61-142 | % Rec | 1 | | | 10/01/24 2000 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 102 | Limit: 53-140 | % Rec | 1 | | | 10/01/24 2000 | BDF |
| Surrogate: Toluene-d8 | 100 | Limit: 86-114 | % Rec | 1 | | | 10/01/24 2000 | BDF |
| Surrogate: Toluene-d8 | 100 | Limit: 82-121 | % Rec | 1 | | | 10/01/24 2000 | BDF |
| Surrogate: 4-Bromofluorobenzene | 102 | Limit: 78-121 | % Rec | 1 | | | 10/01/24 2000 | BDF |
| Surrogate: 4-Bromofluorobenzene | 102 | Limit: 80-116 | % Rec | 1 | | | 10/01/24 2000 | 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 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Barium, total | **0.0901** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1829 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-18 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-09 | **Collection Date:** | 09/25/2024 16:30 |

| 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 | | | 10/03/24 2036 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 10/02/24 0000 | 10/02/24 1427 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-18 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-09 | **Collection Date:** | 09/25/2024 16:30 |

| 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 | | | 10/03/24 2036 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2036 | BDF |
| Surrogate: Dibromofluoromethane | 93.8 | Limit: 57-134 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1427 | BDF |
| Surrogate: Dibromofluoromethane | 94.1 | Limit: 75-136 | % Rec | 1 | | | 10/03/24 2036 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 99.4 | Limit: 53-140 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1427 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 93.3 | Limit: 61-142 | % Rec | 1 | | | 10/03/24 2036 | BDF |
| Surrogate: Toluene-d8 | 99.1 | Limit: 86-114 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1427 | BDF |
| Surrogate: Toluene-d8 | 96.9 | Limit: 82-121 | % Rec | 1 | | | 10/03/24 2036 | BDF |
| Surrogate: 4-Bromofluorobenzene | 102 | Limit: 78-121 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1427 | BDF |
| Surrogate: 4-Bromofluorobenzene | 96.9 | Limit: 80-116 | % Rec | 1 | | | 10/03/24 2036 | 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 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Arsenic, total | **0.0436** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Barium, total | **0.416** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Cadmium, total | **0.0009** | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Cobalt, total | **0.0010** | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Nickel, total | **0.0054** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/07/24 1150 | RVV |

CERTIFICATE OF ANALYSIS

1HI1877

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-20 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-10 | **Collection Date:** | 09/25/2024 14:45 |

| 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 | | | 10/03/24 2059 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 10/02/24 0000 | 10/02/24 1449 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Benzene | **2.1** | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Chlorobenzene | **1.9** | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-20 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-10 | **Collection Date:** | 09/25/2024 14:45 |

| 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 | | | 10/03/24 2059 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2059 | BDF |
| Surrogate: Dibromofluoromethane | 94.4 | Limit: 75-136 | % Rec | 1 | | | 10/03/24 2059 | BDF |
| Surrogate: Dibromofluoromethane | 94.0 | Limit: 57-134 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1449 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 100 | Limit: 53-140 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1449 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 92.2 | Limit: 61-142 | % Rec | 1 | | | 10/03/24 2059 | BDF |
| Surrogate: Toluene-d8 | 97.4 | Limit: 82-121 | % Rec | 1 | | | 10/03/24 2059 | BDF |
| Surrogate: Toluene-d8 | 108 | Limit: 86-114 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1449 | BDF |
| Surrogate: 4-Bromofluorobenzene | 104 | Limit: 78-121 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1449 | BDF |
| Surrogate: 4-Bromofluorobenzene | 97.6 | Limit: 80-116 | % Rec | 1 | | | 10/03/24 2059 | 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 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Arsenic, total | **0.0441** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Barium, total | **1.95** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Cobalt, total | **0.0064** | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Nickel, total | **0.0180** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1841 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | Duplicate | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-11 | **Collection Date:** | 09/25/2024 |

| 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 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Arsenic, total | **0.0261** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Barium, total | **0.730** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Cobalt, total | **0.0017** | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Nickel, total | **0.0335** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1847 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-53 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-12 | **Collection Date:** | 09/25/2024 17:30 |

| 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 | | | 10/03/24 2121 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 10/02/24 0000 | 10/02/24 1512 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-53 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-12 | **Collection Date:** | 09/25/2024 17:30 |

| 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 | | | 10/03/24 2121 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2121 | BDF |
| Surrogate: Dibromofluoromethane | 95.3 | Limit: 57-134 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1512 | BDF |
| Surrogate: Dibromofluoromethane | 94.9 | Limit: 75-136 | % Rec | 1 | | | 10/03/24 2121 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 93.5 | Limit: 61-142 | % Rec | 1 | | | 10/03/24 2121 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 103 | Limit: 53-140 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1512 | BDF |
| Surrogate: Toluene-d8 | 100 | Limit: 86-114 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1512 | BDF |
| Surrogate: Toluene-d8 | 97.3 | Limit: 82-121 | % Rec | 1 | | | 10/03/24 2121 | BDF |
| Surrogate: 4-Bromofluorobenzene | 90.4 | Limit: 78-121 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1512 | BDF |
| Surrogate: 4-Bromofluorobenzene | 97.4 | Limit: 80-116 | % Rec | 1 | | | 10/03/24 2121 | 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 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Barium, total | **0.0589** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1853 | RVV |

CERTIFICATE OF ANALYSIS

1HI1877

| | | | |
|---|---|---|---|
| **Client Sample ID:** | GV-3 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-13 | **Collection Date:** | 09/25/2024 18:06 |

| 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 | | | 10/03/24 2144 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 10/02/24 0000 | 10/02/24 1534 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | GV-3 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-13 | **Collection Date:** | 09/25/2024 18:06 |

| 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 | | | 10/03/24 2144 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2144 | BDF |
| Surrogate: Dibromofluoromethane | 95.9 | Limit: 75-136 | % Rec | 1 | | | 10/03/24 2144 | BDF |
| Surrogate: Dibromofluoromethane | 95.9 | Limit: 57-134 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1534 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 102 | Limit: 53-140 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1534 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 94.1 | Limit: 61-142 | % Rec | 1 | | | 10/03/24 2144 | BDF |
| Surrogate: Toluene-d8 | 97.6 | Limit: 82-121 | % Rec | 1 | | | 10/03/24 2144 | BDF |
| Surrogate: Toluene-d8 | 98.4 | Limit: 86-114 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1534 | BDF |
| Surrogate: 4-Bromofluorobenzene | 104 | Limit: 78-121 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1534 | BDF |
| Surrogate: 4-Bromofluorobenzene | 97.2 | Limit: 80-116 | % Rec | 1 | | | 10/03/24 2144 | 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 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Barium, total | **0.242** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Selenium, total | **0.0040** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1911 | RVV |

CERTIFICATE OF ANALYSIS

1HI1877

| | | | |
|---|---|---|---|
| **Client Sample ID:** | GV-4 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-14 | **Collection Date:** | 09/25/2024 17:59 |

| 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 | | | 10/03/24 2207 | BDF |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 10/02/24 0000 | 10/02/24 1557 | BDF |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | GV-4 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | Whipple, Todd |
| **Lab Sample ID:** | 1HI1877-14 | **Collection Date:** | 09/25/2024 17:59 |

| 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 | | | 10/03/24 2207 | BDF |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | | 10/03/24 2207 | BDF |
| Surrogate: Dibromofluoromethane | 95.1 | Limit: 75-136 | % Rec | 1 | | | 10/03/24 2207 | BDF |
| Surrogate: Dibromofluoromethane | 96.5 | Limit: 57-134 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1557 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 94.4 | Limit: 61-142 | % Rec | 1 | | | 10/03/24 2207 | BDF |
| Surrogate: 1,2-Dichloroethane-d4 | 104 | Limit: 53-140 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1557 | BDF |
| Surrogate: Toluene-d8 | 100 | Limit: 86-114 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1557 | BDF |
| Surrogate: Toluene-d8 | 97.5 | Limit: 82-121 | % Rec | 1 | | | 10/03/24 2207 | BDF |
| Surrogate: 4-Bromofluorobenzene | 97.3 | Limit: 80-116 | % Rec | 1 | | | 10/03/24 2207 | BDF |
| Surrogate: 4-Bromofluorobenzene | 102 | Limit: 78-121 | % Rec | 1 | | 10/02/24 0000 | 10/02/24 1557 | 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 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Barium, total | **0.289** | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |
| Zinc, total | **0.106** | 0.0200 | mg/L | 4 | | 10/02/24 1601 | 10/03/24 1918 | RVV |

**Batch Log Summary**

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 376.2 | 1HJ0090 | 1HJ0090-MSD1 | 1HI1952-01 |
| | | 1HJ0090-BLK1 | |
| | | 1HI1877-04 | MW-10 |
| | | 1HJ0090-MS1 | 1HI1952-01 |
| | | 1HJ0090-BS1 | |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 8260B | 1HJ0118 | 1HJ0118-BS1 | |
| | | 1HJ0118-BLK1 | |
| | | 1HI1877-01 | MW-1D |
| | | 1HI1877-02 | MW-3 |
| | | 1HI1877-03 | MW-7 |
| | | 1HI1877-04 | MW-10 |
| | | 1HI1877-05 | MW-13 |
| | | 1HI1877-06 | MW-14 |
| | | 1HI1877-07 | MW-16 |
| | | 1HI1877-08 | MW-17 (b) |
| | | 1HJ0118-MS1 | 1HI1863-09 |
| | | 1HJ0118-MSD1 | 1HI1863-09 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 6020A | 1HJ0171 | 1HJ0171-BLK1 | |
| | | 1HJ0171-BS1 | |
| | | 1HJ0171-MS1 | 1HI1877-01 |
| | | 1HJ0171-MSD1 | 1HI1877-01 |
| | | 1HJ0171-PS1 | 1HI1877-01 |
| | | 1HI1877-02 | MW-3 |
| | | 1HI1877-05 | MW-13 |
| | | 1HI1877-06 | MW-14 |
| | | 1HI1877-07 | MW-16 |
| | | 1HI1877-08 | MW-17 (b) |
| | | 1HI1877-10 | MW-20 |
| | | 1HI1877-11 | Duplicate |
| | | 1HI1877-12 | MW-53 |
| | | 1HI1877-13 | GV-3 |
| | | 1HI1877-14 | GV-4 |
| | | 1HI1877-01 | MW-1D |
| | | 1HI1877-03 | MW-7 |
| | | 1HI1877-04 | MW-10 |
| | | 1HI1877-09 | MW-18 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 8260B | 1HJ0198 | 1HI1877-09 | MW-18 |
| | | 1HI1877-10 | MW-20 |
| | | 1HI1877-12 | MW-53 |
| | | 1HI1877-13 | GV-3 |
| | | 1HI1877-14 | GV-4 |
| | | 1HJ0198-BS1 | |
| | | 1HJ0198-BSD1 | |
| | | 1HJ0198-BLK1 | |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 7470A | 1HJ0203 | 1HJ0203-BLK1 | |
| | | 1HJ0203-BS1 | |
| | | 1HJ0203-MS1 | 1HI1589-04RE1 |
| | | 1HJ0203-MSD1 | 1HI1589-04RE1 |
| | | 1HI1877-04 | MW-10 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 8260B | 1HJ0341 | 1HJ0341-BS1 | |
| | | 1HJ0341-BLK1 | |
| | | 1HJ0341-MS1 | 1HJ0275-05 |
| | | 1HJ0341-MSD1 | 1HJ0275-05 |
| | | 1HI1877-09 | MW-18 |
| | | 1HI1877-10 | MW-20 |
| | | 1HI1877-12 | MW-53 |
| | | 1HI1877-13 | GV-3 |
| | | 1HI1877-14 | GV-4 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 8015C | 1HJ0622 | 1HJ0622-BS1 | |
| | | 1HJ0622-BLK1 | |
| | | 1HI1877-04 | MW-10 |
| | | 1HJ0622-MS1 | 1HI1877-04 |
| | | 1HJ0622-MSD1 | 1HI1877-04 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 8260B | 1HJ0745 | 1HJ0745-BS1 | |
| | | 1HJ0745-BSD1 | |
| | | 1HJ0745-BLK1 | |
| | | 1HI1877-04 | MW-10 |

**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 1HJ0118 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Blank (1HJ0118-BLK1)** | | | | Prepared & Analyzed: 10/01/24 09:50 | | | | | | |
| 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 | | | | | | | |
| 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 | | | | | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0118 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Blank (1HJ0118-BLK1)** | | | Prepared & Analyzed: 10/01/24 09:50 | | | | | | | |
| 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 | | | | | | | |
| 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 | | | | | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0118 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Blank (1HJ0118-BLK1)** | | | Prepared & Analyzed: 10/01/24 09:50 | | | | | | | |
| 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* | *50.2* | | ug/L | *50.2* | | *100* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *50.2* | | ug/L | *50.2* | | *100* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *50.2* | | ug/L | *50.2* | | *100* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *53.4* | | ug/L | *50.4* | | *106* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *53.4* | | ug/L | *50.4* | | *106* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *53.4* | | ug/L | *50.4* | | *106* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *53.4* | | ug/L | *50.4* | | *106* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *58.5* | | ug/L | *50.5* | | *116* | *86-114* | | | *S1* |
| *Surrogate: Toluene-d8* | *58.5* | | ug/L | *50.5* | | *116* | *86-114* | | | *S1* |
| *Surrogate: Toluene-d8* | *58.5* | | ug/L | *50.5* | | *116* | *86-114* | | | *S1* |
| *Surrogate: Toluene-d8* | *58.5* | | ug/L | *50.5* | | *116* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *52.4* | | ug/L | *50.2* | | *104* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *52.4* | | ug/L | *50.2* | | *104* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *52.4* | | ug/L | *50.2* | | *104* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *52.4* | | ug/L | *50.2* | | *104* | *80-116* | | | |
| **LCS (1HJ0118-BS1)** | | | Prepared & Analyzed: 10/01/24 08:43 | | | | | | | |
| Dichlorodifluoromethane | 36.32 | 1.0 | ug/L | 30.0 | | 121 | 49-138 | | | |
| Chloromethane | 35.45 | 1.0 | ug/L | 30.0 | | 118 | 60-141 | | | |
| Chloromethane | 35.45 | 1.0 | ug/L | 30.0 | | 118 | 63-155 | | | |
| Vinyl Chloride | 34.15 | 1.0 | ug/L | 30.0 | | 114 | 65-137 | | | |
| Vinyl Chloride | 34.15 | 1.0 | ug/L | 30.0 | | 114 | 70-154 | | | |
| Bromomethane | 26.59 | 1.0 | ug/L | 30.0 | | 88.6 | 47-173 | | | |
| Bromomethane | 26.59 | 1.0 | ug/L | 30.0 | | 88.6 | 52-176 | | | |
| Chloroethane | 42.35 | 1.0 | ug/L | 30.0 | | 141 | 67-145 | | | |
| Chloroethane | 42.35 | 1.0 | ug/L | 30.0 | | 141 | 72-148 | | | |
| Trichlorofluoromethane | 36.28 | 1.0 | ug/L | 30.0 | | 121 | 63-127 | | | |
| Trichlorofluoromethane | 36.28 | 1.0 | ug/L | 30.0 | | 121 | 70-152 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0118 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **LCS (1HJ0118-BS1)** | | | Prepared & Analyzed: 10/01/24 08:43 | | | | | | | |
| Acrolein | 43.53 | 10.0 | ug/L | 100 | | 43.3 | 21-142 | | | Q3 |
| 1,1-Dichloroethylene | 109.8 | 1.0 | ug/L | 100 | | 110 | 69-136 | | | |
| 1,1-Dichloroethylene | 109.8 | 1.0 | ug/L | 100 | | 110 | 70-148 | | | |
| Acetone | 113.9 | 10.0 | ug/L | 101 | | 113 | 45-153 | | | |
| Acetone | 113.9 | 10.0 | ug/L | 101 | | 113 | 43-172 | | | |
| Methyl Iodide | 111.9 | 2.0 | ug/L | 102 | | 110 | 58-156 | | | |
| Methyl Iodide | 111.9 | 1.0 | ug/L | 102 | | 110 | 69-170 | | | |
| Carbon Disulfide | 111.5 | 1.0 | ug/L | 103 | | 109 | 68-128 | | | |
| Carbon Disulfide | 111.5 | 1.0 | ug/L | 103 | | 109 | 72-162 | | | |
| Acetonitrile | 110.9 | 10.0 | ug/L | 103 | | 108 | 35-177 | | | |
| Methylene Chloride | 104.3 | 5.0 | ug/L | 100 | | 104 | 65-124 | | | |
| Methylene Chloride | 104.3 | 5.0 | ug/L | 100 | | 104 | 68-142 | | | |
| Acrylonitrile | 102.6 | 5.0 | ug/L | 100 | | 102 | 56-135 | | | |
| Acrylonitrile | 102.6 | 5.0 | ug/L | 100 | | 102 | 56-135 | | | |
| trans-1,2-Dichloroethylene | 107.7 | 1.0 | ug/L | 100 | | 108 | 74-126 | | | |
| trans-1,2-Dichloroethylene | 107.7 | 1.0 | ug/L | 100 | | 108 | 66-148 | | | |
| 1,1-Dichloroethane | 107.8 | 1.0 | ug/L | 100 | | 108 | 73-122 | | | |
| 1,1-Dichloroethane | 107.8 | 1.0 | ug/L | 100 | | 108 | 66-143 | | | |
| Vinyl Acetate | 109.9 | 5.0 | ug/L | 100 | | 110 | 24-171 | | | |
| Vinyl Acetate | 109.9 | 5.0 | ug/L | 100 | | 110 | 43-153 | | | |
| 2,2-Dichloropropane | 100.6 | 1.0 | ug/L | 100 | | 101 | 68-120 | | | |
| cis-1,2-Dichloroethylene | 100.4 | 1.0 | ug/L | 100 | | 100 | 65-149 | | | |
| cis-1,2-Dichloroethylene | 100.4 | 1.0 | ug/L | 100 | | 100 | 71-149 | | | |
| 2-Butanone (MEK) | 106.3 | 5.0 | ug/L | 102 | | 104 | 57-147 | | | |
| 2-Butanone (MEK) | 106.3 | 10.0 | ug/L | 102 | | 104 | 52-159 | | | |
| Bromochloromethane | 107.7 | 1.0 | ug/L | 100 | | 108 | 76-125 | | | |
| Bromochloromethane | 107.7 | 1.0 | ug/L | 100 | | 108 | 69-143 | | | |
| Chloroform | 100.5 | 1.0 | ug/L | 100 | | 101 | 71-125 | | | |
| Chloroform | 100.5 | 1.0 | ug/L | 100 | | 101 | 69-144 | | | |
| 1,1,1-Trichloroethane | 96.61 | 1.0 | ug/L | 100 | | 96.6 | 66-118 | | | |
| 1,1,1-Trichloroethane | 96.61 | 1.0 | ug/L | 100 | | 96.6 | 62-129 | | | |
| 1,1-Dichloropropene | 96.83 | 1.0 | ug/L | 100 | | 96.8 | 69-130 | | | |
| Carbon Tetrachloride | 102.4 | 1.0 | ug/L | 100 | | 102 | 68-126 | | | |
| Carbon Tetrachloride | 102.4 | 1.0 | ug/L | 100 | | 102 | 63-141 | | | |
| Benzene | 97.99 | 1.0 | ug/L | 100 | | 98.0 | 81-123 | | | |
| Benzene | 97.99 | 1.0 | ug/L | 100 | | 98.0 | 71-134 | | | |
| 1,2-Dichloroethane | 101.2 | 1.0 | ug/L | 100 | | 101 | 70-130 | | | |
| 1,2-Dichloroethane | 101.2 | 1.0 | ug/L | 100 | | 101 | 72-132 | | | |
| Trichloroethylene | 98.43 | 1.0 | ug/L | 100 | | 98.4 | 84-118 | | | |
| Trichloroethylene | 98.43 | 1.0 | ug/L | 100 | | 98.4 | 71-135 | | | |
| 1,2-Dichloropropane | 88.64 | 1.0 | ug/L | 100 | | 88.6 | 87-118 | | | |
| 1,2-Dichloropropane | 88.64 | 1.0 | ug/L | 100 | | 88.6 | 69-136 | | | |
| Dibromomethane | 94.24 | 1.0 | ug/L | 100 | | 94.2 | 82-126 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0118 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **LCS (1HJ0118-BS1)** | | | | Prepared & Analyzed: 10/01/24 08:43 | | | | | | |
| Dibromomethane | 94.24 | 1.0 | ug/L | 100 | | 94.2 | 73-147 | | | |
| Bromodichloromethane | 91.97 | 1.0 | ug/L | 100 | | 92.0 | 80-116 | | | |
| Bromodichloromethane | 91.97 | 1.0 | ug/L | 100 | | 92.0 | 68-129 | | | |
| cis-1,3-Dichloropropene | 92.02 | 1.0 | ug/L | 100 | | 92.0 | 83-116 | | | |
| cis-1,3-Dichloropropene | 92.02 | 1.0 | ug/L | 100 | | 92.0 | 65-134 | | | |
| 4-Methyl-2-pentanone (MIBK) | 104.6 | 5.0 | ug/L | 100 | | 105 | 74-138 | | | |
| 4-Methyl-2-pentanone (MIBK) | 104.6 | 5.0 | ug/L | 100 | | 105 | 58-147 | | | |
| Toluene | 92.25 | 1.0 | ug/L | 100 | | 92.2 | 78-123 | | | |
| Toluene | 92.25 | 1.0 | ug/L | 100 | | 92.2 | 72-133 | | | |
| trans-1,3-Dichloropropene | 94.18 | 1.0 | ug/L | 100 | | 94.2 | 75-120 | | | |
| trans-1,3-Dichloropropene | 94.18 | 1.0 | ug/L | 100 | | 94.2 | 67-130 | | | |
| Ethyl Methacrylate | 99.48 | 10.0 | ug/L | 102 | | 97.1 | 77-129 | | | |
| 1,1,2-Trichloroethane | 93.09 | 1.0 | ug/L | 100 | | 93.1 | 81-121 | | | |
| 1,1,2-Trichloroethane | 93.09 | 1.0 | ug/L | 100 | | 93.1 | 69-135 | | | |
| Tetrachloroethylene | 103.1 | 1.0 | ug/L | 100 | | 103 | 76-120 | | | |
| Tetrachloroethylene | 103.1 | 1.0 | ug/L | 100 | | 103 | 69-130 | | | |
| 1,3-Dichloropropane | 115.8 | 1.0 | ug/L | 100 | | 116 | 86-131 | | | |
| 2-Hexanone (MBK) | 109.0 | 5.0 | ug/L | 99.3 | | 110 | 76-139 | | | |
| 2-Hexanone (MBK) | 109.0 | 5.0 | ug/L | 99.3 | | 110 | 55-144 | | | |
| Dibromochloromethane | 109.2 | 1.0 | ug/L | 100 | | 109 | 83-123 | | | |
| Dibromochloromethane | 109.2 | 1.0 | ug/L | 100 | | 109 | 73-127 | | | |
| 1,2-Dibromoethane | 109.0 | 1.0 | ug/L | 100 | | 109 | 86-115 | | | |
| 1,2-Dibromoethane | 109.0 | 1.0 | ug/L | 100 | | 109 | 67-132 | | | |
| Chlorobenzene | 99.38 | 1.0 | ug/L | 100 | | 99.4 | 82-117 | | | |
| Chlorobenzene | 99.38 | 1.0 | ug/L | 100 | | 99.4 | 72-123 | | | |
| 1,1,1,2-Tetrachloroethane | 98.24 | 1.0 | ug/L | 100 | | 98.2 | 86-119 | | | |
| 1,1,1,2-Tetrachloroethane | 98.24 | 1.0 | ug/L | 100 | | 98.2 | 73-127 | | | |
| Ethylbenzene | 98.02 | 1.0 | ug/L | 100 | | 98.0 | 80-122 | | | |
| Ethylbenzene | 98.02 | 1.0 | ug/L | 100 | | 98.0 | 71-127 | | | |
| Xylenes, total | 306.7 | 2.0 | ug/L | 300 | | 102 | 81-122 | | | |
| Xylenes, total | 306.7 | 2.0 | ug/L | 300 | | 102 | 74-127 | | | |
| Styrene | 100.4 | 1.0 | ug/L | 100 | | 100 | 85-118 | | | |
| Styrene | 100.4 | 1.0 | ug/L | 100 | | 100 | 66-126 | | | |
| Bromoform | 97.39 | 1.0 | ug/L | 100 | | 97.4 | 80-123 | | | |
| Bromoform | 97.39 | 1.0 | ug/L | 100 | | 97.4 | 68-130 | | | |
| 1,2,3-Trichloropropane | 104.2 | 1.0 | ug/L | 100 | | 104 | 83-126 | | | |
| 1,2,3-Trichloropropane | 104.2 | 1.0 | ug/L | 100 | | 104 | 63-136 | | | |
| trans-1,4-Dichloro-2-butene | 97.18 | 5.0 | ug/L | 103 | | 94.5 | 67-118 | | | |
| trans-1,4-Dichloro-2-butene | 97.18 | 5.0 | ug/L | 103 | | 94.5 | 54-134 | | | |
| 1,1,2,2-Tetrachloroethane | 121.3 | 1.0 | ug/L | 100 | | 121 | 81-124 | | | |
| 1,1,2,2-Tetrachloroethane | 121.3 | 1.0 | ug/L | 100 | | 121 | 61-131 | | | |
| 1,3-Dichlorobenzene | 101.1 | 1.0 | ug/L | 100 | | 101 | 83-114 | | | |
| 1,4-Dichlorobenzene | 98.93 | 1.0 | ug/L | 100 | | 98.9 | 83-117 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0118 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **LCS (1HJ0118-BS1)** | | | Prepared & Analyzed: 10/01/24 08:43 | | | | | | | |
| 1,4-Dichlorobenzene | 98.93 | 1.0 | ug/L | 100 | | 98.9 | 70-129 | | | |
| 1,2-Dichlorobenzene | 97.42 | 1.0 | ug/L | 100 | | 97.4 | 83-116 | | | |
| 1,2-Dichlorobenzene | 97.42 | 1.0 | ug/L | 100 | | 97.4 | 69-126 | | | |
| 1,2-Dibromo-3-chloropropane | 96.60 | 1.0 | ug/L | 100 | | 96.6 | 77-128 | | | |
| 1,2-Dibromo-3-chloropropane | 96.60 | 5.0 | ug/L | 100 | | 96.6 | 50-143 | | | |
| 1,2,4-Trichlorobenzene | 98.55 | 1.0 | ug/L | 100 | | 98.6 | 66-134 | | | |
| *Surrogate: Dibromofluoromethane* | *51.2* | | ug/L | *50.2* | | *102* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *51.2* | | ug/L | *50.2* | | *102* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *51.2* | | ug/L | *50.2* | | *102* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *52.8* | | ug/L | *50.4* | | *105* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *52.8* | | ug/L | *50.4* | | *105* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *52.8* | | ug/L | *50.4* | | *105* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *52.8* | | ug/L | *50.4* | | *105* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *48.4* | | ug/L | *50.5* | | *95.8* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *48.4* | | ug/L | *50.5* | | *95.8* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *48.4* | | ug/L | *50.5* | | *95.8* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *48.4* | | ug/L | *50.5* | | *95.8* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.8* | | ug/L | *50.2* | | *101* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.8* | | ug/L | *50.2* | | *101* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.8* | | ug/L | *50.2* | | *101* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.8* | | ug/L | *50.2* | | *101* | *80-116* | | | |
| **Matrix Spike (1HJ0118-MS1)** | **Source: 1HI1863-09** | | Prepared & Analyzed: 10/01/24 20:23 | | | | | | | |
| Dichlorodifluoromethane | 311.8 | 10.0 | ug/L | 300 | ND | 104 | 37-140 | | | |
| Chloromethane | 333.0 | 10.0 | ug/L | 300 | ND | 111 | 47-147 | | | |
| Chloromethane | 333.0 | 10.0 | ug/L | 300 | ND | 111 | 61-152 | | | |
| Vinyl Chloride | 321.9 | 10.0 | ug/L | 300 | ND | 107 | 55-142 | | | |
| Vinyl Chloride | 321.9 | 10.0 | ug/L | 300 | ND | 107 | 66-149 | | | |
| Bromomethane | 258.6 | 10.0 | ug/L | 300 | ND | 86.2 | 34-160 | | | |
| Bromomethane | 258.6 | 10.0 | ug/L | 300 | ND | 86.2 | 43-171 | | | |
| Chloroethane | 336.1 | 10.0 | ug/L | 300 | ND | 112 | 54-154 | | | |
| Chloroethane | 336.1 | 10.0 | ug/L | 300 | ND | 112 | 69-148 | | | |
| Trichlorofluoromethane | 327.7 | 10.0 | ug/L | 300 | ND | 109 | 49-131 | | | |
| Trichlorofluoromethane | 327.7 | 10.0 | ug/L | 300 | ND | 109 | 62-163 | | | |
| Acrolein | 229.9 | 100 | ug/L | 1000 | ND | 22.9 | 22-138 | | | M2 |
| 1,1-Dichloroethylene | 1032 | 10.0 | ug/L | 1000 | ND | 103 | 57-143 | | | |
| 1,1-Dichloroethylene | 1032 | 10.0 | ug/L | 1000 | ND | 103 | 70-148 | | | |
| Acetone | 1179 | 100 | ug/L | 1010 | ND | 116 | 27-173 | | | |
| Acetone | 1179 | 100 | ug/L | 1010 | ND | 116 | 45-173 | | | |
| Methyl Iodide | 906.5 | 20.0 | ug/L | 1020 | ND | 89.0 | 39-157 | | | |
| Methyl Iodide | 906.5 | 10.0 | ug/L | 1020 | ND | 89.0 | 62-167 | | | |
| Carbon Disulfide | 1012 | 10.0 | ug/L | 1030 | ND | 98.5 | 53-136 | | | |
| Carbon Disulfide | 1012 | 10.0 | ug/L | 1030 | ND | 98.5 | 71-163 | | | |
| Acetonitrile | 1110 | 100 | ug/L | 1030 | ND | 108 | 11-189 | | | |
| Methylene Chloride | 979.0 | 50.0 | ug/L | 1000 | ND | 97.9 | 57-128 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0118 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Matrix Spike (1HJ0118-MS1)** | **Source: 1HI1863-09** | | Prepared & Analyzed: 10/01/24 20:23 | | | | | | | |
| Methylene Chloride | 979.0 | 50.0 | ug/L | 1000 | ND | 97.9 | 69-140 | | | |
| Acrylonitrile | 1000 | 50.0 | ug/L | 1000 | ND | 99.7 | 38-147 | | | |
| Acrylonitrile | 1000 | 50.0 | ug/L | 1000 | ND | 99.7 | 38-147 | | | |
| trans-1,2-Dichloroethylene | 1008 | 10.0 | ug/L | 1000 | ND | 101 | 61-135 | | | |
| trans-1,2-Dichloroethylene | 1008 | 10.0 | ug/L | 1000 | ND | 101 | 69-144 | | | |
| 1,1-Dichloroethane | 1006 | 10.0 | ug/L | 1000 | ND | 101 | 60-131 | | | |
| 1,1-Dichloroethane | 1006 | 10.0 | ug/L | 1000 | ND | 101 | 70-138 | | | |
| Vinyl Acetate | 994.0 | 50.0 | ug/L | 1000 | ND | 99.4 | 24-163 | | | |
| Vinyl Acetate | 994.0 | 50.0 | ug/L | 1000 | ND | 99.4 | 58-142 | | | |
| 2,2-Dichloropropane | 860.0 | 10.0 | ug/L | 1000 | ND | 86.0 | 37-112 | | | |
| cis-1,2-Dichloroethylene | 916.2 | 10.0 | ug/L | 1000 | ND | 91.6 | 47-162 | | | |
| cis-1,2-Dichloroethylene | 916.2 | 10.0 | ug/L | 1000 | ND | 91.6 | 68-151 | | | |
| 2-Butanone (MEK) | 1067 | 50.0 | ug/L | 1020 | ND | 105 | 45-156 | | | |
| 2-Butanone (MEK) | 1067 | 100 | ug/L | 1020 | ND | 105 | 50-160 | | | |
| Bromochloromethane | 1002 | 10.0 | ug/L | 1000 | ND | 100 | 55-132 | | | |
| Bromochloromethane | 1002 | 10.0 | ug/L | 1000 | ND | 100 | 65-143 | | | |
| Chloroform | 930.4 | 10.0 | ug/L | 1000 | ND | 93.0 | 45-142 | | | |
| Chloroform | 930.4 | 10.0 | ug/L | 1000 | ND | 93.0 | 71-143 | | | |
| 1,1,1-Trichloroethane | 881.5 | 10.0 | ug/L | 1000 | ND | 88.2 | 52-128 | | | |
| 1,1,1-Trichloroethane | 881.5 | 10.0 | ug/L | 1000 | ND | 88.2 | 63-133 | | | |
| 1,1-Dichloropropene | 898.3 | 10.0 | ug/L | 1000 | ND | 89.8 | 49-138 | | | |
| Carbon Tetrachloride | 931.7 | 10.0 | ug/L | 1000 | ND | 93.2 | 56-132 | | | |
| Carbon Tetrachloride | 931.7 | 10.0 | ug/L | 1000 | ND | 93.2 | 63-142 | | | |
| Benzene | 968.5 | 10.0 | ug/L | 1000 | ND | 96.8 | 77-124 | | | |
| Benzene | 968.5 | 10.0 | ug/L | 1000 | ND | 96.8 | 69-133 | | | |
| 1,2-Dichloroethane | 991.6 | 10.0 | ug/L | 1000 | ND | 99.2 | 67-130 | | | |
| 1,2-Dichloroethane | 991.6 | 10.0 | ug/L | 1000 | ND | 99.2 | 63-138 | | | |
| Trichloroethylene | 1018 | 10.0 | ug/L | 1000 | ND | 102 | 75-123 | | | |
| Trichloroethylene | 1018 | 10.0 | ug/L | 1000 | ND | 102 | 71-133 | | | |
| 1,2-Dichloropropane | 979.6 | 10.0 | ug/L | 1000 | ND | 98.0 | 75-126 | | | |
| 1,2-Dichloropropane | 979.6 | 10.0 | ug/L | 1000 | ND | 98.0 | 69-132 | | | |
| Dibromomethane | 931.9 | 10.0 | ug/L | 1000 | ND | 93.2 | 72-131 | | | |
| Dibromomethane | 931.9 | 10.0 | ug/L | 1000 | ND | 93.2 | 70-147 | | | |
| Bromodichloromethane | 901.0 | 10.0 | ug/L | 1000 | ND | 90.1 | 70-123 | | | |
| Bromodichloromethane | 901.0 | 10.0 | ug/L | 1000 | ND | 90.1 | 67-130 | | | |
| cis-1,3-Dichloropropene | 891.5 | 10.0 | ug/L | 1000 | ND | 89.2 | 68-119 | | | |
| cis-1,3-Dichloropropene | 891.5 | 10.0 | ug/L | 1000 | ND | 89.2 | 61-126 | | | |
| 4-Methyl-2-pentanone (MIBK) | 1042 | 50.0 | ug/L | 1000 | ND | 104 | 57-153 | | | |
| 4-Methyl-2-pentanone (MIBK) | 1042 | 50.0 | ug/L | 1000 | ND | 104 | 55-147 | | | |
| Toluene | 922.3 | 10.0 | ug/L | 1000 | ND | 92.2 | 63-131 | | | |
| Toluene | 922.3 | 10.0 | ug/L | 1000 | ND | 92.2 | 71-133 | | | |
| trans-1,3-Dichloropropene | 905.5 | 10.0 | ug/L | 1000 | ND | 90.6 | 65-121 | | | |
| trans-1,3-Dichloropropene | 905.5 | 10.0 | ug/L | 1000 | ND | 90.6 | 63-124 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0118 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Matrix Spike (1HJ0118-MS1)** | **Source: 1HI1863-09** | | Prepared & Analyzed: 10/01/24 20:23 | | | | | | | |
| Ethyl Methacrylate | 982.3 | 100 | ug/L | 1020 | ND | 95.9 | 62-137 | | | |
| 1,1,2-Trichloroethane | 915.3 | 10.0 | ug/L | 1000 | ND | 91.5 | 76-124 | | | |
| 1,1,2-Trichloroethane | 915.3 | 10.0 | ug/L | 1000 | ND | 91.5 | 69-133 | | | |
| Tetrachloroethylene | 1023 | 10.0 | ug/L | 1000 | ND | 102 | 77-117 | | | |
| Tetrachloroethylene | 1023 | 10.0 | ug/L | 1000 | ND | 102 | 70-124 | | | |
| 1,3-Dichloropropane | 1172 | 10.0 | ug/L | 1000 | ND | 117 | 81-132 | | | |
| 2-Hexanone (MBK) | 1129 | 50.0 | ug/L | 993 | ND | 114 | 63-152 | | | |
| 2-Hexanone (MBK) | 1129 | 50.0 | ug/L | 993 | ND | 114 | 53-141 | | | |
| Dibromochloromethane | 994.0 | 10.0 | ug/L | 1000 | ND | 99.4 | 77-124 | | | |
| Dibromochloromethane | 994.0 | 10.0 | ug/L | 1000 | ND | 99.4 | 74-122 | | | |
| 1,2-Dibromoethane | 988.7 | 10.0 | ug/L | 1000 | ND | 98.9 | 82-117 | | | |
| 1,2-Dibromoethane | 988.7 | 10.0 | ug/L | 1000 | ND | 98.9 | 66-127 | | | |
| Chlorobenzene | 998.0 | 10.0 | ug/L | 1000 | ND | 99.8 | 82-114 | | | |
| Chlorobenzene | 998.0 | 10.0 | ug/L | 1000 | ND | 99.8 | 76-116 | | | |
| 1,1,1,2-Tetrachloroethane | 981.2 | 10.0 | ug/L | 1000 | ND | 98.1 | 82-118 | | | |
| 1,1,1,2-Tetrachloroethane | 981.2 | 10.0 | ug/L | 1000 | ND | 98.1 | 77-121 | | | |
| Ethylbenzene | 1000 | 10.0 | ug/L | 1000 | ND | 100 | 80-119 | | | |
| Ethylbenzene | 1000 | 10.0 | ug/L | 1000 | ND | 100 | 73-124 | | | |
| Xylenes, total | 3273 | 20.0 | ug/L | 3000 | ND | 109 | 81-119 | | | |
| Xylenes, total | 3273 | 20.0 | ug/L | 3000 | ND | 109 | 75-123 | | | |
| Styrene | 1091 | 10.0 | ug/L | 1000 | ND | 109 | 81-119 | | | |
| Styrene | 1091 | 10.0 | ug/L | 1000 | ND | 109 | 70-120 | | | |
| Bromoform | 1020 | 10.0 | ug/L | 1000 | ND | 102 | 74-122 | | | |
| Bromoform | 1020 | 10.0 | ug/L | 1000 | ND | 102 | 70-124 | | | |
| 1,2,3-Trichloropropane | 1129 | 10.0 | ug/L | 1000 | ND | 113 | 72-138 | | | |
| 1,2,3-Trichloropropane | 1129 | 10.0 | ug/L | 1000 | ND | 113 | 62-135 | | | |
| trans-1,4-Dichloro-2-butene | 981.7 | 50.0 | ug/L | 1030 | ND | 95.5 | 56-116 | | | |
| trans-1,4-Dichloro-2-butene | 981.7 | 50.0 | ug/L | 1030 | ND | 95.5 | 50-120 | | | |
| 1,1,2,2-Tetrachloroethane | 1439 | 10.0 | ug/L | 1000 | ND | 144 | 78-126 | | | M1 |
| 1,1,2,2-Tetrachloroethane | 1439 | 10.0 | ug/L | 1000 | ND | 144 | 63-126 | | | M1 |
| 1,3-Dichlorobenzene | 1023 | 10.0 | ug/L | 1000 | ND | 102 | 81-113 | | | |
| 1,4-Dichlorobenzene | 991.4 | 10.0 | ug/L | 1000 | ND | 99.1 | 81-116 | | | |
| 1,4-Dichlorobenzene | 991.4 | 10.0 | ug/L | 1000 | ND | 99.1 | 72-119 | | | |
| 1,2-Dichlorobenzene | 986.2 | 10.0 | ug/L | 1000 | ND | 98.6 | 81-116 | | | |
| 1,2-Dichlorobenzene | 986.2 | 10.0 | ug/L | 1000 | ND | 98.6 | 71-117 | | | |
| 1,2-Dibromo-3-chloropropane | 981.4 | 10.0 | ug/L | 1000 | ND | 98.1 | 63-138 | | | |
| 1,2-Dibromo-3-chloropropane | 981.4 | 50.0 | ug/L | 1000 | ND | 98.1 | 49-134 | | | |
| 1,2,4-Trichlorobenzene | 973.1 | 10.0 | ug/L | 1000 | ND | 97.3 | 65-132 | | | |
| *Surrogate: Dibromofluoromethane* | *464* | | ug/L | *502* | | *92.4* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *464* | | ug/L | *502* | | *92.4* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *464* | | ug/L | *502* | | *92.4* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *488* | | ug/L | *504* | | *97.0* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *488* | | ug/L | *504* | | *97.0* | *53-140* | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0118 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Matrix Spike (1HJ0118-MS1)** | **Source: 1HI1863-09** | | Prepared & Analyzed: 10/01/24 20:23 | | | | | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *488* | | ug/L | *504* | | *97.0* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *488* | | ug/L | *504* | | *97.0* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *477* | | ug/L | *505* | | *94.5* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *477* | | ug/L | *505* | | *94.5* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *477* | | ug/L | *505* | | *94.5* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *477* | | ug/L | *505* | | *94.5* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *545* | | ug/L | *502* | | *109* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *545* | | ug/L | *502* | | *109* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *545* | | ug/L | *502* | | *109* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *545* | | ug/L | *502* | | *109* | *80-116* | | | |
| **Matrix Spike Dup (1HJ0118-MSD1)** | **Source: 1HI1863-09** | | Prepared & Analyzed: 10/01/24 20:45 | | | | | | | |
| Dichlorodifluoromethane | 297.9 | 10.0 | ug/L | 300 | ND | 99.3 | 37-140 | 4.56 | 18 | |
| Chloromethane | 301.7 | 10.0 | ug/L | 300 | ND | 101 | 47-147 | 9.86 | 18 | |
| Chloromethane | 301.7 | 10.0 | ug/L | 300 | ND | 101 | 61-152 | 9.86 | 26 | |
| Vinyl Chloride | 294.3 | 10.0 | ug/L | 300 | ND | 98.1 | 55-142 | 8.96 | 20 | |
| Vinyl Chloride | 294.3 | 10.0 | ug/L | 300 | ND | 98.1 | 66-149 | 8.96 | 23 | |
| Bromomethane | 236.9 | 10.0 | ug/L | 300 | ND | 79.0 | 34-160 | 8.76 | 22 | |
| Bromomethane | 236.9 | 10.0 | ug/L | 300 | ND | 79.0 | 43-171 | 8.76 | 29 | |
| Chloroethane | 308.9 | 10.0 | ug/L | 300 | ND | 103 | 54-154 | 8.43 | 20 | |
| Chloroethane | 308.9 | 10.0 | ug/L | 300 | ND | 103 | 69-148 | 8.43 | 25 | |
| Trichlorofluoromethane | 310.4 | 10.0 | ug/L | 300 | ND | 103 | 49-131 | 5.42 | 14 | |
| Trichlorofluoromethane | 310.4 | 10.0 | ug/L | 300 | ND | 103 | 62-163 | 5.42 | 25 | |
| Acrolein | 259.6 | 100 | ug/L | 1000 | ND | 25.8 | 22-138 | 12.1 | 30 | M2 |
| 1,1-Dichloroethylene | 960.4 | 10.0 | ug/L | 1000 | ND | 96.0 | 57-143 | 7.15 | 15 | |
| 1,1-Dichloroethylene | 960.4 | 10.0 | ug/L | 1000 | ND | 96.0 | 70-148 | 7.15 | 22 | |
| Acetone | 1113 | 100 | ug/L | 1010 | ND | 110 | 27-173 | 5.74 | 30 | |
| Acetone | 1113 | 100 | ug/L | 1010 | ND | 110 | 45-173 | 5.74 | 30 | |
| Methyl Iodide | 915.9 | 20.0 | ug/L | 1020 | ND | 89.9 | 39-157 | 1.03 | 12 | |
| Methyl Iodide | 915.9 | 10.0 | ug/L | 1020 | ND | 89.9 | 62-167 | 1.03 | 24 | |
| Carbon Disulfide | 945.9 | 10.0 | ug/L | 1030 | ND | 92.1 | 53-136 | 6.73 | 20 | |
| Carbon Disulfide | 945.9 | 10.0 | ug/L | 1030 | ND | 92.1 | 71-163 | 6.73 | 22 | |
| Acetonitrile | 1053 | 100 | ug/L | 1030 | ND | 103 | 11-189 | 5.23 | 24 | |
| Methylene Chloride | 927.3 | 50.0 | ug/L | 1000 | ND | 92.7 | 57-128 | 5.42 | 14 | |
| Methylene Chloride | 927.3 | 50.0 | ug/L | 1000 | ND | 92.7 | 69-140 | 5.42 | 19 | |
| Acrylonitrile | 969.0 | 50.0 | ug/L | 1000 | ND | 96.5 | 38-147 | 3.20 | 30 | |
| Acrylonitrile | 969.0 | 50.0 | ug/L | 1000 | ND | 96.5 | 38-147 | 3.20 | 30 | |
| trans-1,2-Dichloroethylene | 954.2 | 10.0 | ug/L | 1000 | ND | 95.4 | 61-135 | 5.53 | 12 | |
| trans-1,2-Dichloroethylene | 954.2 | 10.0 | ug/L | 1000 | ND | 95.4 | 69-144 | 5.53 | 22 | |
| 1,1-Dichloroethane | 956.7 | 10.0 | ug/L | 1000 | ND | 95.7 | 60-131 | 4.99 | 15 | |
| 1,1-Dichloroethane | 956.7 | 10.0 | ug/L | 1000 | ND | 95.7 | 70-138 | 4.99 | 20 | |
| Vinyl Acetate | 963.2 | 50.0 | ug/L | 1000 | ND | 96.3 | 24-163 | 3.15 | 16 | |
| Vinyl Acetate | 963.2 | 50.0 | ug/L | 1000 | ND | 96.3 | 58-142 | 3.15 | 24 | |
| 2,2-Dichloropropane | 833.6 | 10.0 | ug/L | 1000 | ND | 83.4 | 37-112 | 3.12 | 13 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0118 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Matrix Spike Dup (1HJ0118-MSD1)** | **Source: 1HI1863-09** | | Prepared & Analyzed: 10/01/24 20:45 | | | | | | | |
| cis-1,2-Dichloroethylene | 881.9 | 10.0 | ug/L | 1000 | ND | 88.2 | 47-162 | 3.82 | 22 | |
| cis-1,2-Dichloroethylene | 881.9 | 10.0 | ug/L | 1000 | ND | 88.2 | 68-151 | 3.82 | 22 | |
| 2-Butanone (MEK) | 1027 | 50.0 | ug/L | 1020 | ND | 101 | 45-156 | 3.76 | 20 | |
| 2-Butanone (MEK) | 1027 | 100 | ug/L | 1020 | ND | 101 | 50-160 | 3.76 | 23 | |
| Bromochloromethane | 981.0 | 10.0 | ug/L | 1000 | ND | 98.1 | 55-132 | 2.16 | 15 | |
| Bromochloromethane | 981.0 | 10.0 | ug/L | 1000 | ND | 98.1 | 65-143 | 2.16 | 22 | |
| Chloroform | 900.4 | 10.0 | ug/L | 1000 | ND | 90.0 | 45-142 | 3.28 | 12 | |
| Chloroform | 900.4 | 10.0 | ug/L | 1000 | ND | 90.0 | 71-143 | 3.28 | 21 | |
| 1,1,1-Trichloroethane | 862.9 | 10.0 | ug/L | 1000 | ND | 86.3 | 52-128 | 2.13 | 14 | |
| 1,1,1-Trichloroethane | 862.9 | 10.0 | ug/L | 1000 | ND | 86.3 | 63-133 | 2.13 | 23 | |
| 1,1-Dichloropropene | 874.4 | 10.0 | ug/L | 1000 | ND | 87.4 | 49-138 | 2.70 | 12 | |
| Carbon Tetrachloride | 921.0 | 10.0 | ug/L | 1000 | ND | 92.1 | 56-132 | 1.16 | 12 | |
| Carbon Tetrachloride | 921.0 | 10.0 | ug/L | 1000 | ND | 92.1 | 63-142 | 1.16 | 22 | |
| Benzene | 933.4 | 10.0 | ug/L | 1000 | ND | 93.3 | 77-124 | 3.69 | 12 | |
| Benzene | 933.4 | 10.0 | ug/L | 1000 | ND | 93.3 | 69-133 | 3.69 | 18 | |
| 1,2-Dichloroethane | 964.1 | 10.0 | ug/L | 1000 | ND | 96.4 | 67-130 | 2.81 | 13 | |
| 1,2-Dichloroethane | 964.1 | 10.0 | ug/L | 1000 | ND | 96.4 | 63-138 | 2.81 | 20 | |
| Trichloroethylene | 941.9 | 10.0 | ug/L | 1000 | ND | 94.2 | 75-123 | 7.80 | 11 | |
| Trichloroethylene | 941.9 | 10.0 | ug/L | 1000 | ND | 94.2 | 71-133 | 7.80 | 23 | |
| 1,2-Dichloropropane | 962.8 | 10.0 | ug/L | 1000 | ND | 96.3 | 75-126 | 1.73 | 11 | |
| 1,2-Dichloropropane | 962.8 | 10.0 | ug/L | 1000 | ND | 96.3 | 69-132 | 1.73 | 20 | |
| Dibromomethane | 969.0 | 10.0 | ug/L | 1000 | ND | 96.9 | 72-131 | 3.90 | 12 | |
| Dibromomethane | 969.0 | 10.0 | ug/L | 1000 | ND | 96.9 | 70-147 | 3.90 | 22 | |
| Bromodichloromethane | 869.0 | 10.0 | ug/L | 1000 | ND | 86.9 | 70-123 | 3.62 | 10 | |
| Bromodichloromethane | 869.0 | 10.0 | ug/L | 1000 | ND | 86.9 | 67-130 | 3.62 | 21 | |
| cis-1,3-Dichloropropene | 866.0 | 10.0 | ug/L | 1000 | ND | 86.6 | 68-119 | 2.90 | 10 | |
| cis-1,3-Dichloropropene | 866.0 | 10.0 | ug/L | 1000 | ND | 86.6 | 61-126 | 2.90 | 21 | |
| 4-Methyl-2-pentanone (MIBK) | 1042 | 50.0 | ug/L | 1000 | ND | 104 | 57-153 | 0.0384 | 11 | |
| 4-Methyl-2-pentanone (MIBK) | 1042 | 50.0 | ug/L | 1000 | ND | 104 | 55-147 | 0.0384 | 23 | |
| Toluene | 887.6 | 10.0 | ug/L | 1000 | ND | 88.8 | 63-131 | 3.83 | 15 | |
| Toluene | 887.6 | 10.0 | ug/L | 1000 | ND | 88.8 | 71-133 | 3.83 | 19 | |
| trans-1,3-Dichloropropene | 892.1 | 10.0 | ug/L | 1000 | ND | 89.2 | 65-121 | 1.49 | 14 | |
| trans-1,3-Dichloropropene | 892.1 | 10.0 | ug/L | 1000 | ND | 89.2 | 63-124 | 1.49 | 21 | |
| Ethyl Methacrylate | 962.8 | 100 | ug/L | 1020 | ND | 94.0 | 62-137 | 2.01 | 10 | |
| 1,1,2-Trichloroethane | 896.3 | 10.0 | ug/L | 1000 | ND | 89.6 | 76-124 | 2.10 | 12 | |
| 1,1,2-Trichloroethane | 896.3 | 10.0 | ug/L | 1000 | ND | 89.6 | 69-133 | 2.10 | 19 | |
| Tetrachloroethylene | 1007 | 10.0 | ug/L | 1000 | ND | 101 | 77-117 | 1.62 | 12 | |
| Tetrachloroethylene | 1007 | 10.0 | ug/L | 1000 | ND | 101 | 70-124 | 1.62 | 24 | |
| 1,3-Dichloropropane | 1152 | 10.0 | ug/L | 1000 | ND | 115 | 81-132 | 1.76 | 12 | |
| 2-Hexanone (MBK) | 1123 | 50.0 | ug/L | 993 | ND | 113 | 63-152 | 0.471 | 19 | |
| 2-Hexanone (MBK) | 1123 | 50.0 | ug/L | 993 | ND | 113 | 53-141 | 0.471 | 24 | |
| Dibromochloromethane | 977.6 | 10.0 | ug/L | 1000 | ND | 97.8 | 77-124 | 1.66 | 17 | |
| Dibromochloromethane | 977.6 | 10.0 | ug/L | 1000 | ND | 97.8 | 74-122 | 1.66 | 21 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0118 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Matrix Spike Dup (1HJ0118-MSD1)** | **Source: 1HI1863-09** | Prepared & Analyzed: 10/01/24 20:45 | | | | | | | | |
| 1,2-Dibromoethane | 970.3 | 10.0 | ug/L | 1000 | ND | 97.0 | 82-117 | 1.88 | 14 | |
| 1,2-Dibromoethane | 970.3 | 10.0 | ug/L | 1000 | ND | 97.0 | 66-127 | 1.88 | 23 | |
| Chlorobenzene | 981.2 | 10.0 | ug/L | 1000 | ND | 98.1 | 82-114 | 1.70 | 11 | |
| Chlorobenzene | 981.2 | 10.0 | ug/L | 1000 | ND | 98.1 | 76-116 | 1.70 | 21 | |
| 1,1,1,2-Tetrachloroethane | 962.0 | 10.0 | ug/L | 1000 | ND | 96.2 | 82-118 | 1.98 | 15 | |
| 1,1,1,2-Tetrachloroethane | 962.0 | 10.0 | ug/L | 1000 | ND | 96.2 | 77-121 | 1.98 | 25 | |
| Ethylbenzene | 969.7 | 10.0 | ug/L | 1000 | ND | 97.0 | 80-119 | 3.08 | 11 | |
| Ethylbenzene | 969.7 | 10.0 | ug/L | 1000 | ND | 97.0 | 73-124 | 3.08 | 20 | |
| Xylenes, total | 3036 | 20.0 | ug/L | 3000 | ND | 101 | 81-119 | 7.52 | 11 | |
| Xylenes, total | 3036 | 20.0 | ug/L | 3000 | ND | 101 | 75-123 | 7.52 | 20 | |
| Styrene | 1006 | 10.0 | ug/L | 1000 | ND | 101 | 81-119 | 8.16 | 12 | |
| Styrene | 1006 | 10.0 | ug/L | 1000 | ND | 101 | 70-120 | 8.16 | 23 | |
| Bromoform | 1025 | 10.0 | ug/L | 1000 | ND | 103 | 74-122 | 0.538 | 12 | |
| Bromoform | 1025 | 10.0 | ug/L | 1000 | ND | 103 | 70-124 | 0.538 | 22 | |
| 1,2,3-Trichloropropane | 1079 | 10.0 | ug/L | 1000 | ND | 108 | 72-138 | 4.52 | 14 | |
| 1,2,3-Trichloropropane | 1079 | 10.0 | ug/L | 1000 | ND | 108 | 62-135 | 4.52 | 28 | |
| trans-1,4-Dichloro-2-butene | 913.3 | 50.0 | ug/L | 1030 | ND | 88.8 | 56-116 | 7.22 | 10 | |
| trans-1,4-Dichloro-2-butene | 913.3 | 50.0 | ug/L | 1030 | ND | 88.8 | 50-120 | 7.22 | 26 | |
| 1,1,2,2-Tetrachloroethane | 1242 | 10.0 | ug/L | 1000 | ND | 124 | 78-126 | 14.7 | 13 | M1 |
| 1,1,2,2-Tetrachloroethane | 1242 | 10.0 | ug/L | 1000 | ND | 124 | 63-126 | 14.7 | 24 | |
| 1,3-Dichlorobenzene | 1016 | 10.0 | ug/L | 1000 | ND | 102 | 81-113 | 0.697 | 14 | |
| 1,4-Dichlorobenzene | 972.1 | 10.0 | ug/L | 1000 | ND | 97.2 | 81-116 | 1.97 | 14 | |
| 1,4-Dichlorobenzene | 972.1 | 10.0 | ug/L | 1000 | ND | 97.2 | 72-119 | 1.97 | 24 | |
| 1,2-Dichlorobenzene | 967.1 | 10.0 | ug/L | 1000 | ND | 96.7 | 81-116 | 1.96 | 13 | |
| 1,2-Dichlorobenzene | 967.1 | 10.0 | ug/L | 1000 | ND | 96.7 | 71-117 | 1.96 | 24 | |
| 1,2-Dibromo-3-chloropropane | 1035 | 10.0 | ug/L | 1000 | ND | 103 | 63-138 | 5.28 | 17 | |
| 1,2-Dibromo-3-chloropropane | 1035 | 50.0 | ug/L | 1000 | ND | 103 | 49-134 | 5.28 | 28 | |
| 1,2,4-Trichlorobenzene | 1014 | 10.0 | ug/L | 1000 | ND | 101 | 65-132 | 4.09 | 15 | |
| *Surrogate: Dibromofluoromethane* | *467* | | ug/L | *502* | | *93.0* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *467* | | ug/L | *502* | | *93.0* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *467* | | ug/L | *502* | | *93.0* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *493* | | ug/L | *504* | | *97.9* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *493* | | ug/L | *504* | | *97.9* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *493* | | ug/L | *504* | | *97.9* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *493* | | ug/L | *504* | | *97.9* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *472* | | ug/L | *505* | | *93.5* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *472* | | ug/L | *505* | | *93.5* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *472* | | ug/L | *505* | | *93.5* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *472* | | ug/L | *505* | | *93.5* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *532* | | ug/L | *502* | | *106* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *532* | | ug/L | *502* | | *106* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *532* | | ug/L | *502* | | *106* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *532* | | ug/L | *502* | | *106* | *80-116* | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0198 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Blank (1HJ0198-BLK1)** | | | Prepared: 10/02/24 00:00 Analyzed: 10/02/24 21:11 | | | | | | | |
| Acrylonitrile | <5.0 | 5.0 | ug/L | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *46.4* | | ug/L | *50.2* | | *92.3* | *57-134* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *48.8* | | ug/L | *50.4* | | *96.9* | *53-140* | | | |
| *Surrogate: Toluene-d8* | *44.5* | | ug/L | *50.5* | | *88.2* | *86-114* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *52.0* | | ug/L | *50.2* | | *104* | *78-121* | | | |
| **LCS (1HJ0198-BS1)** | | | Prepared: 10/02/24 00:00 Analyzed: 10/02/24 19:42 | | | | | | | |
| Acrylonitrile | 107.0 | 5.0 | ug/L | 100 | | 107 | 56-135 | | | |
| *Surrogate: Dibromofluoromethane* | *47.2* | | ug/L | *50.2* | | *94.0* | *57-134* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *50.1* | | ug/L | *50.4* | | *99.5* | *53-140* | | | |
| *Surrogate: Toluene-d8* | *52.0* | | ug/L | *50.5* | | *103* | *86-114* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.0* | | ug/L | *50.2* | | *99.6* | *78-121* | | | |
| **LCS Dup (1HJ0198-BSD1)** | | | Prepared: 10/02/24 00:00 Analyzed: 10/02/24 20:04 | | | | | | | |
| Acrylonitrile | 96.95 | 5.0 | ug/L | 100 | | 96.6 | 56-135 | 9.85 | 16 | |
| *Surrogate: Dibromofluoromethane* | *47.2* | | ug/L | *50.2* | | *93.9* | *57-134* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *49.8* | | ug/L | *50.4* | | *98.8* | *53-140* | | | |
| *Surrogate: Toluene-d8* | *52.2* | | ug/L | *50.5* | | *104* | *86-114* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.9* | | ug/L | *50.2* | | *101* | *78-121* | | | |
| **Batch 1HJ0341 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Blank (1HJ0341-BLK1)** | | | Prepared & Analyzed: 10/03/24 16:13 | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromomethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Chloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| Acetone | <10.0 | 10.0 | ug/L | | | | | | | |
| Methyl Iodide | <1.0 | 1.0 | ug/L | | | | | | | |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | | | | | | | |
| Methylene Chloride | <5.0 | 5.0 | ug/L | | | | | | | |
| 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 | | | | | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0341 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Blank (1HJ0341-BLK1)** | | | Prepared & Analyzed: 10/03/24 16:13 | | | | | | | |
| Trichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | | | | | | | |
| Dibromomethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | | | | | | | |
| Toluene | <1.0 | 1.0 | ug/L | | | | | | | |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | | | | | | | |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Chlorobenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Ethylbenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| Xylenes, total | <2.0 | 2.0 | ug/L | | | | | | | |
| Styrene | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromoform | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | | | | | | | |
| trans-1,4-Dichloro-2-butene | <5.0 | 5.0 | ug/L | | | | | | | |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *46.9* | | ug/L | *50.2* | | *93.5* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *46.1* | | ug/L | *50.4* | | *91.6* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *49.4* | | ug/L | *50.5* | | *97.9* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *49.2* | | ug/L | *50.2* | | *98.1* | *80-116* | | | |
| **LCS (1HJ0341-BS1)** | | | Prepared & Analyzed: 10/03/24 15:05 | | | | | | | |
| Chloromethane | 29.61 | 1.0 | ug/L | 30.0 | | 98.7 | 63-155 | | | |
| Vinyl Chloride | 25.80 | 1.0 | ug/L | 30.0 | | 86.0 | 70-154 | | | |
| Bromomethane | 29.84 | 1.0 | ug/L | 30.0 | | 99.5 | 52-176 | | | |
| Chloroethane | 28.25 | 1.0 | ug/L | 30.0 | | 94.2 | 72-148 | | | |
| Trichlorofluoromethane | 28.40 | 1.0 | ug/L | 30.0 | | 94.7 | 70-152 | | | |
| 1,1-Dichloroethylene | 81.74 | 1.0 | ug/L | 100 | | 81.7 | 70-148 | | | |
| Acetone | 134.9 | 10.0 | ug/L | 101 | | 133 | 43-172 | | | |
| Methyl Iodide | 110.8 | 1.0 | ug/L | 102 | | 109 | 69-170 | | | |
| Carbon Disulfide | 86.48 | 1.0 | ug/L | 103 | | 84.2 | 72-162 | | | |
| Methylene Chloride | 86.75 | 5.0 | ug/L | 100 | | 86.8 | 68-142 | | | |
| trans-1,2-Dichloroethylene | 82.53 | 1.0 | ug/L | 100 | | 82.5 | 66-148 | | | |
| 1,1-Dichloroethane | 81.24 | 1.0 | ug/L | 100 | | 81.2 | 66-143 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0341 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **LCS (1HJ0341-BS1)** | | | Prepared & Analyzed: 10/03/24 15:05 | | | | | | | |
| Vinyl Acetate | 87.98 | 5.0 | ug/L | 100 | | 88.0 | 43-153 | | | |
| cis-1,2-Dichloroethylene | 74.74 | 1.0 | ug/L | 100 | | 74.7 | 71-149 | | | |
| 2-Butanone (MEK) | 106.8 | 10.0 | ug/L | 102 | | 105 | 52-159 | | | |
| Bromochloromethane | 90.74 | 1.0 | ug/L | 100 | | 90.7 | 69-143 | | | |
| Chloroform | 86.69 | 1.0 | ug/L | 100 | | 86.7 | 69-144 | | | |
| 1,1,1-Trichloroethane | 83.18 | 1.0 | ug/L | 100 | | 83.2 | 62-129 | | | |
| Carbon Tetrachloride | 97.71 | 1.0 | ug/L | 100 | | 97.7 | 63-141 | | | |
| Benzene | 94.37 | 1.0 | ug/L | 100 | | 94.4 | 71-134 | | | |
| 1,2-Dichloroethane | 92.39 | 1.0 | ug/L | 100 | | 92.4 | 72-132 | | | |
| Trichloroethylene | 89.50 | 1.0 | ug/L | 100 | | 89.5 | 71-135 | | | |
| 1,2-Dichloropropane | 86.55 | 1.0 | ug/L | 100 | | 86.6 | 69-136 | | | |
| Dibromomethane | 91.62 | 1.0 | ug/L | 100 | | 91.6 | 73-147 | | | |
| Bromodichloromethane | 87.48 | 1.0 | ug/L | 100 | | 87.5 | 68-129 | | | |
| cis-1,3-Dichloropropene | 89.24 | 1.0 | ug/L | 100 | | 89.2 | 65-134 | | | |
| 4-Methyl-2-pentanone (MIBK) | 83.29 | 5.0 | ug/L | 100 | | 83.2 | 58-147 | | | |
| Toluene | 96.03 | 1.0 | ug/L | 100 | | 96.0 | 72-133 | | | |
| trans-1,3-Dichloropropene | 94.02 | 1.0 | ug/L | 100 | | 94.0 | 67-130 | | | |
| 1,1,2-Trichloroethane | 96.16 | 1.0 | ug/L | 100 | | 96.2 | 69-135 | | | |
| Tetrachloroethylene | 94.71 | 1.0 | ug/L | 100 | | 94.7 | 69-130 | | | |
| 2-Hexanone (MBK) | 98.47 | 5.0 | ug/L | 99.3 | | 99.2 | 55-144 | | | |
| Dibromochloromethane | 95.83 | 1.0 | ug/L | 100 | | 95.8 | 73-127 | | | |
| 1,2-Dibromoethane | 90.68 | 1.0 | ug/L | 100 | | 90.7 | 67-132 | | | |
| Chlorobenzene | 97.53 | 1.0 | ug/L | 100 | | 97.5 | 72-123 | | | |
| 1,1,1,2-Tetrachloroethane | 96.63 | 1.0 | ug/L | 100 | | 96.6 | 73-127 | | | |
| Ethylbenzene | 91.29 | 1.0 | ug/L | 100 | | 91.3 | 71-127 | | | |
| Xylenes, total | 276.4 | 2.0 | ug/L | 300 | | 92.1 | 74-127 | | | |
| Styrene | 96.27 | 1.0 | ug/L | 100 | | 96.3 | 66-126 | | | |
| Bromoform | 95.14 | 1.0 | ug/L | 100 | | 95.1 | 68-130 | | | |
| 1,2,3-Trichloropropane | 89.64 | 1.0 | ug/L | 100 | | 89.6 | 63-136 | | | |
| trans-1,4-Dichloro-2-butene | 78.98 | 5.0 | ug/L | 103 | | 76.8 | 54-134 | | | |
| 1,1,2,2-Tetrachloroethane | 86.99 | 1.0 | ug/L | 100 | | 87.0 | 61-131 | | | |
| 1,4-Dichlorobenzene | 97.51 | 1.0 | ug/L | 100 | | 97.5 | 70-129 | | | |
| 1,2-Dichlorobenzene | 100.5 | 1.0 | ug/L | 100 | | 101 | 69-126 | | | |
| 1,2-Dibromo-3-chloropropane | 107.4 | 5.0 | ug/L | 100 | | 107 | 50-143 | | | |
| *Surrogate: Dibromofluoromethane* | *46.5* | | ug/L | *50.2* | | *92.6* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *45.1* | | ug/L | *50.4* | | *89.6* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *50.0* | | ug/L | *50.5* | | *99.0* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.5* | | ug/L | *50.2* | | *101* | *80-116* | | | |
| **Matrix Spike (1HJ0341-MS1)** | **Source: 1HJ0275-05** | | Prepared & Analyzed: 10/03/24 17:35 | | | | | | | |
| Chloromethane | 308.9 | 10.0 | ug/L | 300 | ND | 103 | 61-152 | | | |
| Vinyl Chloride | 264.7 | 10.0 | ug/L | 300 | ND | 88.2 | 66-149 | | | |
| Bromomethane | 300.7 | 10.0 | ug/L | 300 | ND | 100 | 43-171 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0341 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Matrix Spike (1HJ0341-MS1)** | **Source: 1HJ0275-05** | | Prepared & Analyzed: 10/03/24 17:35 | | | | | | | |
| Chloroethane | 290.0 | 10.0 | ug/L | 300 | ND | 96.7 | 69-148 | | | |
| Trichlorofluoromethane | 291.4 | 10.0 | ug/L | 300 | ND | 97.1 | 62-163 | | | |
| 1,1-Dichloroethylene | 830.8 | 10.0 | ug/L | 1000 | ND | 83.1 | 70-148 | | | |
| Acetone | 1997 | 100 | ug/L | 1010 | ND | 197 | 45-173 | | | M1 |
| Methyl Iodide | 1037 | 10.0 | ug/L | 1020 | ND | 102 | 62-167 | | | |
| Carbon Disulfide | 874.3 | 10.0 | ug/L | 1030 | ND | 85.1 | 71-163 | | | |
| Methylene Chloride | 869.9 | 50.0 | ug/L | 1000 | ND | 87.0 | 69-140 | | | |
| trans-1,2-Dichloroethylene | 834.6 | 10.0 | ug/L | 1000 | ND | 83.5 | 69-144 | | | |
| 1,1-Dichloroethane | 817.1 | 10.0 | ug/L | 1000 | ND | 81.7 | 70-138 | | | |
| Vinyl Acetate | 869.2 | 50.0 | ug/L | 1000 | ND | 86.9 | 58-142 | | | |
| cis-1,2-Dichloroethylene | 746.9 | 10.0 | ug/L | 1000 | ND | 74.7 | 68-151 | | | |
| 2-Butanone (MEK) | 1434 | 100 | ug/L | 1020 | ND | 141 | 50-160 | | | |
| Bromochloromethane | 884.5 | 10.0 | ug/L | 1000 | ND | 88.4 | 65-143 | | | |
| Chloroform | 872.3 | 10.0 | ug/L | 1000 | ND | 87.2 | 71-143 | | | |
| 1,1,1-Trichloroethane | 835.8 | 10.0 | ug/L | 1000 | ND | 83.6 | 63-133 | | | |
| Carbon Tetrachloride | 987.7 | 10.0 | ug/L | 1000 | ND | 98.8 | 63-142 | | | |
| Benzene | 934.2 | 10.0 | ug/L | 1000 | ND | 93.4 | 69-133 | | | |
| 1,2-Dichloroethane | 914.3 | 10.0 | ug/L | 1000 | ND | 91.4 | 63-138 | | | |
| Trichloroethylene | 890.8 | 10.0 | ug/L | 1000 | ND | 89.1 | 71-133 | | | |
| 1,2-Dichloropropane | 850.7 | 10.0 | ug/L | 1000 | ND | 85.1 | 69-132 | | | |
| Dibromomethane | 902.7 | 10.0 | ug/L | 1000 | ND | 90.3 | 70-147 | | | |
| Bromodichloromethane | 860.5 | 10.0 | ug/L | 1000 | ND | 86.0 | 67-130 | | | |
| cis-1,3-Dichloropropene | 888.1 | 10.0 | ug/L | 1000 | ND | 88.8 | 61-126 | | | |
| 4-Methyl-2-pentanone (MIBK) | 892.3 | 50.0 | ug/L | 1000 | ND | 89.1 | 55-147 | | | |
| Toluene | 949.9 | 10.0 | ug/L | 1000 | ND | 95.0 | 71-133 | | | |
| trans-1,3-Dichloropropene | 931.3 | 10.0 | ug/L | 1000 | ND | 93.1 | 63-124 | | | |
| 1,1,2-Trichloroethane | 940.3 | 10.0 | ug/L | 1000 | ND | 94.0 | 69-133 | | | |
| Tetrachloroethylene | 942.3 | 10.0 | ug/L | 1000 | ND | 94.2 | 70-124 | | | |
| 2-Hexanone (MBK) | 1364 | 50.0 | ug/L | 993 | ND | 137 | 53-141 | | | |
| Dibromochloromethane | 947.7 | 10.0 | ug/L | 1000 | ND | 94.8 | 74-122 | | | |
| 1,2-Dibromoethane | 898.6 | 10.0 | ug/L | 1000 | ND | 89.9 | 66-127 | | | |
| Chlorobenzene | 956.2 | 10.0 | ug/L | 1000 | ND | 95.6 | 76-116 | | | |
| 1,1,1,2-Tetrachloroethane | 946.0 | 10.0 | ug/L | 1000 | ND | 94.6 | 77-121 | | | |
| Ethylbenzene | 904.5 | 10.0 | ug/L | 1000 | ND | 90.4 | 73-124 | | | |
| Xylenes, total | 2725 | 20.0 | ug/L | 3000 | ND | 90.8 | 75-123 | | | |
| Styrene | 943.8 | 10.0 | ug/L | 1000 | ND | 94.4 | 70-120 | | | |
| Bromoform | 928.3 | 10.0 | ug/L | 1000 | ND | 92.8 | 70-124 | | | |
| 1,2,3-Trichloropropane | 883.3 | 10.0 | ug/L | 1000 | ND | 88.3 | 62-135 | | | |
| trans-1,4-Dichloro-2-butene | 783.5 | 50.0 | ug/L | 1030 | ND | 76.2 | 50-120 | | | |
| 1,1,2,2-Tetrachloroethane | 860.5 | 10.0 | ug/L | 1000 | ND | 86.0 | 63-126 | | | |
| 1,4-Dichlorobenzene | 965.3 | 10.0 | ug/L | 1000 | ND | 96.5 | 72-119 | | | |
| 1,2-Dichlorobenzene | 992.3 | 10.0 | ug/L | 1000 | ND | 99.2 | 71-117 | | | |
| 1,2-Dibromo-3-chloropropane | 1043 | 50.0 | ug/L | 1000 | ND | 104 | 49-134 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0341 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Matrix Spike (1HJ0341-MS1)** | **Source: 1HJ0275-05** | | Prepared & Analyzed: 10/03/24 17:35 | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *465* | | ug/L | *502* | | *92.6* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *453* | | ug/L | *504* | | *89.9* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *495* | | ug/L | *505* | | *98.1* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *501* | | ug/L | *502* | | *99.9* | *80-116* | | | |
| **Matrix Spike Dup (1HJ0341-MSD1)** | **Source: 1HJ0275-05** | | Prepared & Analyzed: 10/03/24 17:58 | | | | | | | |
| Chloromethane | 278.2 | 10.0 | ug/L | 300 | ND | 92.7 | 61-152 | 10.5 | 26 | |
| Vinyl Chloride | 235.8 | 10.0 | ug/L | 300 | ND | 78.6 | 66-149 | 11.5 | 23 | |
| Bromomethane | 276.5 | 10.0 | ug/L | 300 | ND | 92.2 | 43-171 | 8.39 | 29 | |
| Chloroethane | 261.3 | 10.0 | ug/L | 300 | ND | 87.1 | 69-148 | 10.4 | 25 | |
| Trichlorofluoromethane | 262.8 | 10.0 | ug/L | 300 | ND | 87.6 | 62-163 | 10.3 | 25 | |
| 1,1-Dichloroethylene | 750.8 | 10.0 | ug/L | 1000 | ND | 75.1 | 70-148 | 10.1 | 22 | |
| Acetone | 1789 | 100 | ug/L | 1010 | ND | 177 | 45-173 | 11.0 | 30 | M1 |
| Methyl Iodide | 948.2 | 10.0 | ug/L | 1020 | ND | 93.1 | 62-167 | 8.93 | 24 | |
| Carbon Disulfide | 792.2 | 10.0 | ug/L | 1030 | ND | 77.1 | 71-163 | 9.85 | 22 | |
| Methylene Chloride | 814.4 | 50.0 | ug/L | 1000 | ND | 81.4 | 69-140 | 6.59 | 19 | |
| trans-1,2-Dichloroethylene | 760.9 | 10.0 | ug/L | 1000 | ND | 76.1 | 69-144 | 9.24 | 22 | |
| 1,1-Dichloroethane | 752.1 | 10.0 | ug/L | 1000 | ND | 75.2 | 70-138 | 8.28 | 20 | |
| Vinyl Acetate | 842.4 | 50.0 | ug/L | 1000 | ND | 84.2 | 58-142 | 3.13 | 24 | |
| cis-1,2-Dichloroethylene | 689.1 | 10.0 | ug/L | 1000 | ND | 68.9 | 68-151 | 8.05 | 22 | |
| 2-Butanone (MEK) | 1292 | 100 | ug/L | 1020 | ND | 127 | 50-160 | 10.4 | 23 | |
| Bromochloromethane | 826.4 | 10.0 | ug/L | 1000 | ND | 82.6 | 65-143 | 6.79 | 22 | |
| Chloroform | 806.2 | 10.0 | ug/L | 1000 | ND | 80.6 | 71-143 | 7.88 | 21 | |
| 1,1,1-Trichloroethane | 762.7 | 10.0 | ug/L | 1000 | ND | 76.3 | 63-133 | 9.15 | 23 | |
| Carbon Tetrachloride | 906.8 | 10.0 | ug/L | 1000 | ND | 90.7 | 63-142 | 8.54 | 22 | |
| Benzene | 867.2 | 10.0 | ug/L | 1000 | ND | 86.7 | 69-133 | 7.44 | 18 | |
| 1,2-Dichloroethane | 866.9 | 10.0 | ug/L | 1000 | ND | 86.7 | 63-138 | 5.32 | 20 | |
| Trichloroethylene | 822.0 | 10.0 | ug/L | 1000 | ND | 82.2 | 71-133 | 8.03 | 23 | |
| 1,2-Dichloropropane | 801.2 | 10.0 | ug/L | 1000 | ND | 80.1 | 69-132 | 5.99 | 20 | |
| Dibromomethane | 858.5 | 10.0 | ug/L | 1000 | ND | 85.8 | 70-147 | 5.02 | 22 | |
| Bromodichloromethane | 818.2 | 10.0 | ug/L | 1000 | ND | 81.8 | 67-130 | 5.04 | 21 | |
| cis-1,3-Dichloropropene | 839.3 | 10.0 | ug/L | 1000 | ND | 83.9 | 61-126 | 5.65 | 21 | |
| 4-Methyl-2-pentanone (MIBK) | 818.5 | 50.0 | ug/L | 1000 | ND | 81.8 | 55-147 | 8.63 | 23 | |
| Toluene | 879.8 | 10.0 | ug/L | 1000 | ND | 88.0 | 71-133 | 7.66 | 19 | |
| trans-1,3-Dichloropropene | 885.0 | 10.0 | ug/L | 1000 | ND | 88.5 | 63-124 | 5.10 | 21 | |
| 1,1,2-Trichloroethane | 902.4 | 10.0 | ug/L | 1000 | ND | 90.2 | 69-133 | 4.11 | 19 | |
| Tetrachloroethylene | 869.2 | 10.0 | ug/L | 1000 | ND | 86.9 | 70-124 | 8.07 | 24 | |
| 2-Hexanone (MBK) | 1253 | 50.0 | ug/L | 993 | ND | 126 | 53-141 | 8.53 | 24 | |
| Dibromochloromethane | 910.9 | 10.0 | ug/L | 1000 | ND | 91.1 | 74-122 | 3.96 | 21 | |
| 1,2-Dibromoethane | 861.1 | 10.0 | ug/L | 1000 | ND | 86.1 | 66-127 | 4.26 | 23 | |
| Chlorobenzene | 897.5 | 10.0 | ug/L | 1000 | ND | 89.8 | 76-116 | 6.33 | 21 | |
| 1,1,1,2-Tetrachloroethane | 896.2 | 10.0 | ug/L | 1000 | ND | 89.6 | 77-121 | 5.41 | 25 | |
| Ethylbenzene | 843.6 | 10.0 | ug/L | 1000 | ND | 84.4 | 73-124 | 6.97 | 20 | |
| Xylenes, total | 2548 | 20.0 | ug/L | 3000 | ND | 84.9 | 75-123 | 6.71 | 20 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0341 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Matrix Spike Dup (1HJ0341-MSD1)** | **Source: 1HJ0275-05** | | Prepared & Analyzed: 10/03/24 17:58 | | | | | | | |
| Styrene | 891.8 | 10.0 | ug/L | 1000 | ND | 89.2 | 70-120 | 5.67 | 23 | |
| Bromoform | 909.5 | 10.0 | ug/L | 1000 | ND | 91.0 | 70-124 | 2.05 | 22 | |
| 1,2,3-Trichloropropane | 853.4 | 10.0 | ug/L | 1000 | ND | 85.3 | 62-135 | 3.44 | 28 | |
| trans-1,4-Dichloro-2-butene | 753.4 | 50.0 | ug/L | 1030 | ND | 73.3 | 50-120 | 3.92 | 26 | |
| 1,1,2,2-Tetrachloroethane | 816.5 | 10.0 | ug/L | 1000 | ND | 81.6 | 63-126 | 5.25 | 24 | |
| 1,4-Dichlorobenzene | 901.3 | 10.0 | ug/L | 1000 | ND | 90.1 | 72-119 | 6.86 | 24 | |
| 1,2-Dichlorobenzene | 932.4 | 10.0 | ug/L | 1000 | ND | 93.2 | 71-117 | 6.22 | 24 | |
| 1,2-Dibromo-3-chloropropane | 984.0 | 50.0 | ug/L | 1000 | ND | 98.4 | 49-134 | 5.86 | 28 | |
| *Surrogate: Dibromofluoromethane* | *469* | | ug/L | *502* | | *93.4* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *451* | | ug/L | *504* | | *89.5* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *498* | | ug/L | *505* | | *98.6* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *503* | | ug/L | *502* | | *100* | *80-116* | | | |
| **Batch 1HJ0745 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **Blank (1HJ0745-BLK1)** | | | Prepared: 10/09/24 00:00 Analyzed: 10/09/24 16:09 | | | | | | | |
| 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* | *51.0* | | ug/L | *50.2* | | *102* | *57-134* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *50.8* | | ug/L | *50.4* | | *101* | *53-140* | | | |
| *Surrogate: Toluene-d8* | *48.6* | | ug/L | *50.5* | | *96.3* | *86-114* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *49.4* | | ug/L | *50.2* | | *98.4* | *78-121* | | | |
| **LCS (1HJ0745-BS1)** | | | Prepared: 10/09/24 00:00 Analyzed: 10/09/24 15:01 | | | | | | | |
| Allyl chloride | 63.43 | 1.0 | ug/L | 50.4 | | 126 | 40-154 | | | |
| Chloroprene | 59.73 | 1.0 | ug/L | 50.4 | | 119 | 57-134 | | | |
| Methacrylonitrile | 54.50 | 1.0 | ug/L | 50.4 | | 108 | 59-124 | | | |
| Methyl Methacrylate | 56.03 | 1.0 | ug/L | 50.1 | | 112 | 64-130 | | | |
| Propionitrile | 54.94 | 10.0 | ug/L | 50.1 | | 110 | 32-180 | | | |
| *Surrogate: Dibromofluoromethane* | *50.6* | | ug/L | *50.2* | | *101* | *57-134* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *50.4* | | ug/L | *50.4* | | *100* | *53-140* | | | |
| *Surrogate: Toluene-d8* | *48.5* | | ug/L | *50.5* | | *96.1* | *86-114* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *46.4* | | ug/L | *50.2* | | *92.4* | *78-121* | | | |
| **LCS Dup (1HJ0745-BSD1)** | | | Prepared: 10/09/24 00:00 Analyzed: 10/09/24 15:24 | | | | | | | |
| Allyl chloride | 64.96 | 1.0 | ug/L | 50.4 | | 129 | 40-154 | 2.38 | 16 | |
| Chloroprene | 60.73 | 1.0 | ug/L | 50.4 | | 121 | 57-134 | 1.66 | 15 | |
| Methacrylonitrile | 56.16 | 1.0 | ug/L | 50.4 | | 111 | 59-124 | 3.00 | 17 | |
| Methyl Methacrylate | 57.70 | 1.0 | ug/L | 50.1 | | 115 | 64-130 | 2.94 | 17 | |
| Propionitrile | 56.80 | 10.0 | ug/L | 50.1 | | 113 | 32-180 | 3.33 | 21 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0745 - EPA 5030B - EPA 8260B** | | | | | | | | | | |
| **LCS Dup (1HJ0745-BSD1)** | | | Prepared: 10/09/24 00:00 Analyzed: 10/09/24 15:24 | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *49.6* | | ug/L | *50.2* | | *98.9* | *57-134* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *50.2* | | ug/L | *50.4* | | *99.6* | *53-140* | | | |
| *Surrogate: Toluene-d8* | *49.3* | | ug/L | *50.5* | | *97.7* | *86-114* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.3* | | ug/L | *50.2* | | *100* | *78-121* | | | |

| Determination of General Solvents | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0622 - Semi-Vol GC - EPA 8015C** | | | | | | | | | | |
| **Blank (1HJ0622-BLK1)** | | | Prepared: 10/08/24 08:46 Analyzed: 10/09/24 20:42 | | | | | | | |
| Isobutanol | <1.0 | 1.0 | mg/L | | | | | | | |
| **LCS (1HJ0622-BS1)** | | | Prepared: 10/08/24 08:46 Analyzed: 10/09/24 17:33 | | | | | | | |
| Isobutanol | 24.96 | 1.0 | mg/L | 24.0 | | 104 | 77-128 | | | |
| **Matrix Spike (1HJ0622-MS1)** | **Source: 1HI1877-04** | | Prepared: 10/08/24 08:46 Analyzed: 10/09/24 21:57 | | | | | | | |
| Isobutanol | 25.08 | 1.0 | mg/L | 24.0 | ND | 105 | 63-135 | | | |
| **Matrix Spike Dup (1HJ0622-MSD1)** | **Source: 1HI1877-04** | | Prepared: 10/08/24 08:46 Analyzed: 10/09/24 22:36 | | | | | | | |
| Isobutanol | 25.34 | 1.0 | mg/L | 24.0 | ND | 106 | 63-135 | 1.02 | 30 | |

| Determination of Conventional Chemistry Parameters | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0090 - Wet Chem Preparation - EPA 376.2** | | | | | | | | | | |
| **Blank (1HJ0090-BLK1)** | | | Prepared: 10/02/24 08:29 Analyzed: 10/02/24 15:19 | | | | | | | |
| Sulfide, total | <0.10 | 0.10 | mg/L | | | | | | | |
| **LCS (1HJ0090-BS1)** | | | Prepared: 10/02/24 08:29 Analyzed: 10/02/24 15:19 | | | | | | | |
| Sulfide, total | 0.320 | 0.10 | mg/L | 0.31 | | 102 | 56-118 | | | |
| **Matrix Spike (1HJ0090-MS1)** | **Source: 1HI1952-01** | | Prepared: 10/02/24 08:29 Analyzed: 10/02/24 15:19 | | | | | | | |
| Sulfide, total | 0.358 | 0.10 | mg/L | 0.31 | ND | 114 | 50-150 | | | |
| **Matrix Spike Dup (1HJ0090-MSD1)** | **Source: 1HI1952-01** | | Prepared: 10/02/24 08:29 Analyzed: 10/02/24 15:19 | | | | | | | |
| Sulfide, total | 0.264 | 0.10 | mg/L | 0.31 | ND | 83.9 | 50-150 | 30.1 | 30 | R1 |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0171 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Blank (1HJ0171-BLK1)** | | | Prepared: 10/02/24 16:01 Analyzed: 10/03/24 17:03 | | | | | | | |
| 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 | | | | | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0171 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Blank (1HJ0171-BLK1)** | | | | Prepared: 10/02/24 16:01 Analyzed: 10/03/24 17:03 | | | | | | |
| 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 (1HJ0171-BS1)** | | | | Prepared: 10/02/24 16:01 Analyzed: 10/03/24 17:09 | | | | | | |
| Antimony, total | 0.0983 | 0.0020 | mg/L | 0.100 | | 98.3 | 80-120 | | | |
| Arsenic, total | 0.0961 | 0.0040 | mg/L | 0.100 | | 96.1 | 80-120 | | | |
| Barium, total | 0.105 | 0.0040 | mg/L | 0.100 | | 105 | 80-120 | | | |
| Beryllium, total | 0.101 | 0.0040 | mg/L | 0.100 | | 101 | 80-120 | | | |
| Cadmium, total | 0.0995 | 0.0008 | mg/L | 0.100 | | 99.5 | 80-120 | | | |
| Chromium, total | 0.0954 | 0.0080 | mg/L | 0.100 | | 95.4 | 80-120 | | | |
| Cobalt, total | 0.103 | 0.0004 | mg/L | 0.100 | | 103 | 80-120 | | | |
| Copper, total | 0.102 | 0.0040 | mg/L | 0.100 | | 102 | 80-120 | | | |
| Lead, total | 0.0996 | 0.0040 | mg/L | 0.100 | | 99.6 | 80-120 | | | |
| Nickel, total | 0.0992 | 0.0040 | mg/L | 0.100 | | 99.2 | 80-120 | | | |
| Selenium, total | 0.0964 | 0.0040 | mg/L | 0.100 | | 96.4 | 80-120 | | | |
| Silver, total | 0.101 | 0.0040 | mg/L | 0.100 | | 101 | 80-120 | | | |
| Thallium, total | 0.0844 | 0.0020 | mg/L | 0.100 | | 84.4 | 80-120 | | | |
| Tin, total | 0.0972 | 0.0200 | mg/L | 0.100 | | 97.2 | 80-120 | | | |
| Vanadium, total | 0.0968 | 0.0200 | mg/L | 0.100 | | 96.8 | 80-120 | | | |
| Zinc, total | 0.101 | 0.0200 | mg/L | 0.100 | | 101 | 80-120 | | | |
| **Matrix Spike (1HJ0171-MS1)** | **Source: 1HI1877-01** | | | Prepared: 10/02/24 16:01 Analyzed: 10/03/24 17:21 | | | | | | |
| Antimony, total | 0.0990 | 0.0020 | mg/L | 0.100 | ND | 99.0 | 75-125 | | | |
| Arsenic, total | 0.0981 | 0.0040 | mg/L | 0.100 | 0.0013 | 96.8 | 75-125 | | | |
| Barium, total | 0.771 | 0.0040 | mg/L | 0.100 | 0.637 | 134 | 75-125 | | | M6 |
| Beryllium, total | 0.0988 | 0.0040 | mg/L | 0.100 | ND | 98.8 | 75-125 | | | |
| Cadmium, total | 0.0963 | 0.0008 | mg/L | 0.100 | 0.0003 | 96.1 | 75-125 | | | |
| Chromium, total | 0.0919 | 0.0080 | mg/L | 0.100 | 0.0006 | 91.9 | 75-125 | | | |
| Cobalt, total | 0.103 | 0.0004 | mg/L | 0.100 | 0.0024 | 100 | 75-125 | | | |
| Copper, total | 0.0939 | 0.0040 | mg/L | 0.100 | 0.0010 | 92.8 | 75-125 | | | |
| Lead, total | 0.0959 | 0.0040 | mg/L | 0.100 | ND | 95.9 | 75-125 | | | |
| Nickel, total | 0.106 | 0.0040 | mg/L | 0.100 | 0.0113 | 94.6 | 75-125 | | | |
| Selenium, total | 0.0932 | 0.0040 | mg/L | 0.100 | ND | 93.2 | 75-125 | | | |
| Silver, total | 0.0972 | 0.0040 | mg/L | 0.100 | ND | 97.2 | 75-125 | | | |
| Thallium, total | 0.0836 | 0.0020 | mg/L | 0.100 | 0.0003 | 83.3 | 75-125 | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0171 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Matrix Spike (1HJ0171-MS1)** | | **Source: 1HI1877-01** | | Prepared: 10/02/24 16:01 Analyzed: 10/03/24 17:21 | | | | | | |
| Tin, total | 0.0973 | 0.0200 | mg/L | 0.100 | ND | 97.3 | 75-125 | | | |
| Vanadium, total | 0.0976 | 0.0200 | mg/L | 0.100 | ND | 97.6 | 75-125 | | | |
| Zinc, total | 0.0946 | 0.0200 | mg/L | 0.100 | ND | 94.6 | 75-125 | | | |
| **Matrix Spike Dup (1HJ0171-MSD1)** | | **Source: 1HI1877-01** | | Prepared: 10/02/24 16:01 Analyzed: 10/03/24 17:27 | | | | | | |
| Antimony, total | 0.101 | 0.0020 | mg/L | 0.100 | ND | 101 | 75-125 | 2.42 | 20 | |
| Arsenic, total | 0.100 | 0.0040 | mg/L | 0.100 | 0.0013 | 98.8 | 75-125 | 2.02 | 20 | |
| Barium, total | 0.779 | 0.0040 | mg/L | 0.100 | 0.637 | 142 | 75-125 | 1.07 | 20 | M6 |
| Beryllium, total | 0.102 | 0.0040 | mg/L | 0.100 | ND | 102 | 75-125 | 3.30 | 20 | |
| Cadmium, total | 0.0958 | 0.0008 | mg/L | 0.100 | 0.0003 | 95.6 | 75-125 | 0.529 | 20 | |
| Chromium, total | 0.0953 | 0.0080 | mg/L | 0.100 | 0.0006 | 95.3 | 75-125 | 3.65 | 20 | |
| Cobalt, total | 0.107 | 0.0004 | mg/L | 0.100 | 0.0024 | 105 | 75-125 | 3.98 | 20 | |
| Copper, total | 0.0994 | 0.0040 | mg/L | 0.100 | 0.0010 | 98.4 | 75-125 | 5.72 | 20 | |
| Lead, total | 0.0979 | 0.0040 | mg/L | 0.100 | ND | 97.9 | 75-125 | 2.15 | 20 | |
| Nickel, total | 0.112 | 0.0040 | mg/L | 0.100 | 0.0113 | 100 | 75-125 | 5.23 | 20 | |
| Selenium, total | 0.0969 | 0.0040 | mg/L | 0.100 | ND | 96.9 | 75-125 | 3.93 | 20 | |
| Silver, total | 0.0997 | 0.0040 | mg/L | 0.100 | ND | 99.7 | 75-125 | 2.53 | 20 | |
| Thallium, total | 0.0853 | 0.0020 | mg/L | 0.100 | 0.0003 | 85.0 | 75-125 | 2.00 | 20 | |
| Tin, total | 0.0997 | 0.0200 | mg/L | 0.100 | ND | 99.7 | 75-125 | 2.46 | 20 | |
| Vanadium, total | 0.100 | 0.0200 | mg/L | 0.100 | ND | 100 | 75-125 | 2.51 | 20 | |
| Zinc, total | 0.0981 | 0.0200 | mg/L | 0.100 | ND | 98.1 | 75-125 | 3.60 | 20 | |
| **Post Spike (1HJ0171-PS1)** | | **Source: 1HI1877-01** | | Prepared: 10/02/24 16:01 Analyzed: 10/03/24 17:34 | | | | | | |
| Antimony, total | 0.0758 | | mg/L | 0.0800 | 0.0001 | 94.5 | 80-120 | | | |
| Arsenic, total | 0.0745 | | mg/L | 0.0800 | 0.0012 | 91.5 | 80-120 | | | |
| Barium, total | 0.721 | | mg/L | 0.0800 | 0.625 | 121 | 80-120 | | | M6 |
| Beryllium, total | 0.0741 | | mg/L | 0.0800 | 0.00001 | 92.6 | 80-120 | | | |
| Cadmium, total | 0.0717 | | mg/L | 0.0800 | 0.0002 | 89.3 | 80-120 | | | |
| Chromium, total | 0.0694 | | mg/L | 0.0800 | 0.0005 | 86.1 | 80-120 | | | |
| Cobalt, total | 0.0786 | | mg/L | 0.0800 | 0.0024 | 95.3 | 80-120 | | | |
| Copper, total | 0.0711 | | mg/L | 0.0800 | 0.0010 | 87.6 | 80-120 | | | |
| Lead, total | 0.0717 | | mg/L | 0.0800 | 0.00006 | 89.6 | 80-120 | | | |
| Nickel, total | 0.0823 | | mg/L | 0.0800 | 0.0111 | 89.0 | 80-120 | | | |
| Selenium, total | 0.0697 | | mg/L | 0.0800 | 0.0007 | 86.3 | 80-120 | | | |
| Silver, total | 0.0738 | | mg/L | 0.0800 | 0.0002 | 91.9 | 80-120 | | | |
| Thallium, total | 0.0614 | | mg/L | 0.0800 | 0.0003 | 76.4 | 80-120 | | | Q |
| Tin, total | 0.0775 | | mg/L | 0.0800 | 0.0003 | 96.4 | 75-125 | | | |
| Vanadium, total | 0.0763 | | mg/L | 0.0800 | 0.0026 | 92.1 | 80-120 | | | |
| Zinc, total | 0.0740 | | mg/L | 0.0800 | 0.0051 | 86.1 | 80-120 | | | |
| **Batch 1HJ0203 - EPA 7470A Hg Water - EPA 7470A** | | | | | | | | | | |
| **Blank (1HJ0203-BLK1)** | | | | Prepared: 10/03/24 08:08 Analyzed: 10/04/24 16:01 | | | | | | |
| Mercury, total | <0.00050 | 0.00050 | mg/L | | | | | | | |
| **LCS (1HJ0203-BS1)** | | | | Prepared: 10/03/24 08:08 Analyzed: 10/04/24 16:03 | | | | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HJ0203 - EPA 7470A Hg Water - EPA 7470A** | | | | | | | | | | |
| **LCS (1HJ0203-BS1)** | | | | Prepared: 10/03/24 08:08 Analyzed: 10/04/24 16:03 | | | | | | |
| Mercury, total | 0.00261 | 0.00050 | mg/L | 0.00250 | | 104 | 80-120 | | | |
| **Matrix Spike (1HJ0203-MS1)** | | **Source: 1HI1589-04RE1** | | Prepared: 10/03/24 08:08 Analyzed: 10/04/24 16:08 | | | | | | |
| Mercury, total | 0.00263 | 0.00050 | mg/L | 0.00250 | ND | 105 | 75-125 | | | |
| **Matrix Spike Dup (1HJ0203-MSD1)** | | **Source: 1HI1589-04RE1** | | Prepared: 10/03/24 08:08 Analyzed: 10/04/24 16:10 | | | | | | |
| Mercury, total | 0.00257 | 0.00050 | mg/L | 0.00250 | ND | 103 | 75-125 | 1.93 | 20 | |

### Definitions

| | |
|---|---|
| **M1:** | Matrix spike recovery is above acceptance limits. |
| **M2:** | Matrix spike recovery is below acceptance limits. |
| **M6:** | Matrix spike recovery is outside of acceptance limits. The analyte concentration is greater than 4X the spiking level. |
| **Q:** | One or more quality control criteria failed. |
| **Q3:** | LCS recovery is below acceptance limits. The reported value is estimated. |
| **R1:** | Duplicate RPD is outside acceptance criteria. |
| **RL:** | Reporting Limit |
| **RPD:** | Relative Percent Difference |
| **S1:** | Surrogate recovery is above acceptance limits. |

### Cooler Receipt Log

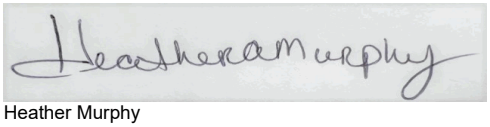
**Cooler ID:** Default Cooler Temp: 0.0°C

### 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 Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
10/11/24 16:18

# CHAIN OF CUSTODY RECORD

MICROBAC®

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

1 H I 1 8 7 7

HLW Engineering
PM: Heather Murphy


Printed: 8/12/2024 3:52:44P
www.keystonelabs.com

**SITE INFORMATION**

Sampler: TODD WHIPPLE
Project: Page Co New Regs
6047

**REPORT TO**

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

**INVOICE TO**

Brian Ward
Page County Landfill Assoc
2002 N Ave
Clarinda, IA 51632

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

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

**LAB USE ONLY**

Work Order 1HJ1877
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-1D | Aqueous | GRAB | 9/25/24 | 17:13 | 7 | lndfill-app1-voc-group | lndfil-app1-metals-6020 | 01 |
| -001 | MW-3 | Aqueous | GRAB | 9/25/24 | 16:45 | 7 | lndfill-app1-voc-group | lndfil-app1-metals-6020 | 02 |
| -001 | MW-7 | Aqueous | GRAB | 9/25/24 | 14:59 | 7 | lndfill-app1-voc-group | lndfil-app1-metals-6020 | 03 |
| -001 | MW-10 | Aqueous | GRAB | 9/25/24 | 18:20 | 12* | lndfil-app2-inorg-6020 | lndfil-app2-org | 04 |
| -001 | MW-13 | Aqueous | GRAB | 9/25/24 | 15:15 | 7 | lndfill-app1-voc-group | lndfil-app1-metals-6020 | 05 |
| -001 | MW-14 | Aqueous | GRAB | 9/25/24 | 15:30 | 7 | lndfill-app1-voc-group | lndfil-app1-metals-6020 | 06 |
| -001 | MW-16 | Aqueous | GRAB | 9/25/24 | 15:53 | 7 | lndfill-app1-voc-group | lndfil-app1-metals-6020 | 07 |

Todd Whipple 9/26/24
Relinquished By Date/Time

Relinquished By Date/Time

Received By Date/Time

DuAnn Bell 9-26-24 10:03
Received for Lab By Date/Time

Remarks: MW-10 became dry before entire sample was collected. Sample is missing (1) 250 plastic NaOH container and the (5) 1 liter glass jars. Please test all App II Compounds possible from the 12 containers.

Original - Lab Copy Yellow - Sampler Copy

# CHAIN OF CUSTODY RECORD

MICROBAC®
600 East 17th Street Sou
Newton, IA 50208
~~641-792-9451~~

1 H I 1 8 7 7

HLW Engineering
PM: Heather Murphy



www.keystonelabs.com

## SITE INFORMATION

Sampler: TODD WHIPPLE

Project: ~~Page Co New Regs~~
~~6047~~

## REPORT TO

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

## INVOICE TO

Brian Ward
Page County Landfill Assoc
2032 N Ave
Clarinda, IA 51632

## SPECIAL INSTRUCTIONS

None

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

## LAB USE ONLY

Work Order 1 HI1877
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-17 (b) | Aqueous | GRAB | 9/25/24 | 16:57 | 7 | lndfill-app1-voc-group lndfil-app1-metals-6020 | 08 |
| -001 | MW-18 | Aqueous | GRAB | 9/25/24 | 16:30 | 7 | lndfill-app1-voc-group lndfil-app1-metals-6020 | 09 |
| -001 | MW-19 NOT Sampled | Aqueous | GRAB | ~~9/25/24~~ | — | 0 | lndfill-app1-voc-group lndfil-app1-metals-6020 | ~~10~~ |
| -001 | MW-20 | Aqueous | GRAB | 9/25/24 | 14:45 | 7 | lndfill-app1-voc-group lndfil-app1-metals-6020 | 10 |
| -001 | GWD-1 DRY | Aqueous | GRAB | 9/25/24 | DRY | 0 | lndfill-app1-voc-group lndfil-app1-metals-6020 | ~~10~~ 11 |
| -001 | Duplicate | Aqueous | GRAB | 9/25/24 | ✓ | 1 | ~~lndfill-app1-voc-group~~ lndfil-app1-metals-6020 | ~~11~~ |
| -001 | MW-44 (b) NOT Sampled | Aqueous | GRAB | — | — | 0 | lndfill-app1-voc-group lndfil-app1-metals-6020 | — |

Relinquished By: Todd Whipple Date/Time: 9/26/24

Received By Date/Time

Relinquished By Date/Time

Received for Lab By: [signature] Date/Time: 9-26-24 10:03

Remarks:

Original - Lab Copy Yellow - Sampler Copy

# CHAIN OF CUSTODY RECORD

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

1 H I 1 8 7 7
HLW Engineering
PM: Heather Murphy



www.keystonelabs.com

**SITE INFORMATION**

Sampler: Todd Whipple

Project: ~~Page Co-New Regs~~ 8047

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

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

**REPORT TO**

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

**INVOICE TO**

Brian Ward
Page County Landfill Assoc
2002 N Ave
Clarinda, IA 51632

**LAB USE ONLY**

Work Order 1HI1877
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-53 | Aqueous | GRAB | 9/25/24 | 17:30 | 7 | lndfill-app1-voc-group lndfil-app1-metals-6020 | ~~13~~ 12 |
| | GW-3 | Aq. | Grab | 9/25/24 | 18:06 | 7 | Landfill App I voc Landfill App I metals | ~~14~~ 13 |
| | GW-4 | Aq. | Grab | 9/25/24 | 17:59 | 7 | Landfill App I voc Landfill App I metals | ~~15~~ 14 |

Todd Whipple 9/24/24
Relinquished By Date/Time

Received By Date/Time

Relinquished By Date/Time

Received for Lab By 9-26-24 10:03
Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

Microbac Laboratories, Inc., Newton

# CERTIFICATE OF ANALYSIS

1HL0001

Project Description

6047

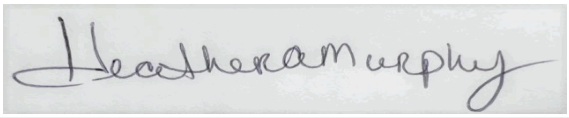
For:

Todd Whipple

**HLW Engineering**

204 West Broad St

Story City, IA 50248



Heather Murphy

Customer Relationship Specialist

Monday, January 20, 2025

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

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

MICROBAC®

Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HL0001

**HLW Engineering**

Todd Whipple
204 West Broad St
Story City, IA 50248

**Project Name: 6047**

Project / PO Number: N/A
Received: 11/27/2024
Reported: 01/20/2025

**Sample Summary Report**

| Sample Name | Laboratory ID | Client Matrix | Sample Type | Sample Begin | Sample Taken | Lab Received |
|---|---|---|---|---|---|---|
| MW-44 | 1HL0001-01 | Aqueous | GRAB | | 11/25/24 10:54 | 11/27/24 09:48 |
| GWD-1 | 1HL0001-02 | Aqueous | GRAB | | 11/25/24 11:33 | 11/27/24 09:48 |
| MW-14 | 1HL0001-03 | Aqueous | GRAB | | 11/25/24 11:45 | 11/27/24 09:48 |
| MW-19 | 1HL0001-04 | Aqueous | GRAB | | 11/25/24 12:02 | 11/27/24 09:48 |
| GU 4 | 1HL0001-05 | Aqueous | | | 11/25/24 12:37 | 11/27/24 09:48 |

**Analytical Testing Parameters**

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-44 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HL0001-01 | **Collection Date:** | 11/25/2024 10:54 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1816 | CSM |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1816 | CSM |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1816 | CSM |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1816 | CSM |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1816 | CSM |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1816 | CSM |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 12/03/24 1148 | 12/02/24 1816 | CSM |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1816 | CSM |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-44 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HL0001-01 | **Collection Date:** | 11/25/2024 10:54 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| trans-1,4-Dichloro-2-butene | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Surrogate: Dibromofluoromethane | 103 | Limit: 57-134 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1816 | CSM |
| Surrogate: Dibromofluoromethane | 103 | Limit: 75-136 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1816 | CSM |
| Surrogate: Dibromofluoromethane | 103 | Limit: 57-134 | % Rec | 1 | | 12/03/24 1148 | 12/02/24 1816 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 110 | Limit: 61-142 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1816 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 110 | Limit: 53-140 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1816 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 110 | Limit: 53-140 | % Rec | 1 | | 12/03/24 1148 | 12/02/24 1816 | CSM |
| Surrogate: Toluene-d8 | 92.5 | Limit: 86-114 | % Rec | 1 | | 12/03/24 1148 | 12/02/24 1816 | CSM |
| Surrogate: Toluene-d8 | 92.6 | Limit: 86-114 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Surrogate: Toluene-d8 | 92.5 | Limit: 82-121 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1816 | CSM |
| Surrogate: 4-Bromofluorobenzene | 96.3 | Limit: 78-121 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1753 | CSM |
| Surrogate: 4-Bromofluorobenzene | 96.7 | Limit: 78-121 | % Rec | 1 | | 12/03/24 1148 | 12/02/24 1816 | CSM |
| Surrogate: 4-Bromofluorobenzene | 96.7 | Limit: 80-116 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1816 | 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 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Barium, total | **0.134** | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2302 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | GWD-1 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HL0001-02 | **Collection Date:** | 11/25/2024 11:33 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | GWD-1 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HL0001-02 | **Collection Date:** | 11/25/2024 11:33 |

| 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 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Surrogate: Dibromofluoromethane | 104 | Limit: 75-136 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Surrogate: Dibromofluoromethane | 104 | Limit: 57-134 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 112 | Limit: 53-140 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 112 | Limit: 61-142 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Surrogate: Toluene-d8 | 94.0 | Limit: 82-121 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Surrogate: Toluene-d8 | 94.0 | Limit: 86-114 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Surrogate: 4-Bromofluorobenzene | 95.8 | Limit: 78-121 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1838 | CSM |
| Surrogate: 4-Bromofluorobenzene | 95.8 | Limit: 80-116 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1838 | 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 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Arsenic, total | **0.0040** | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Barium, total | **0.210** | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Cobalt, total | <0.0004 | 0.0004 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Nickel, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2308 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-14 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HL0001-03 | **Collection Date:** | 11/25/2024 11:45 |

| Determination of Total Metals | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **200.7** | | | | | | | | |
| Calcium, total | **165** | 0.1 | mg/L | 1 | | 12/02/24 1519 | 12/03/24 2255 | JAR |
| **EPA 200.7, Rv. 4.4 (1994)** | | | | | | | | |
| Cadmium, total | <0.005 | 0.005 | mg/L | 1 | | 12/02/24 1519 | 12/03/24 2255 | JAR |
| **EPA 3005A/EPA 6020A** | | | | | | | | |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 01/13/25 1526 | 01/15/25 1857 | RVV |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-19 | | |
| **Sample Matrix:** | Aqueous | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HL0001-04 | **Collection Date:** | 11/25/2024 12:02 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 8260D** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Acetone | <10.0 | 10.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Methyl Iodide | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Acrylonitrile | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,1-Dichloroethane | **3.0** | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| cis-1,2-Dichloroethylene | **2.4** | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Bromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 2-Hexanone (MBK) | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Dibromochloromethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,2-Dibromoethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,1,1,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Styrene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,2,3-Trichloropropane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |

**Client Sample ID:** MW-19
**Sample Matrix:** Aqueous
**Lab Sample ID:** 1HL0001-04
**Collected By:** JGH
**Collection Date:** 11/25/2024 12:02

| 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 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| 1,2-Dibromo-3-chloropropane | <5.0 | 5.0 | ug/L | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Surrogate: Dibromofluoromethane | 107 | Limit: 75-136 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Surrogate: Dibromofluoromethane | 107 | Limit: 57-134 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 113 | Limit: 53-140 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 113 | Limit: 61-142 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Surrogate: Toluene-d8 | 93.2 | Limit: 86-114 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Surrogate: Toluene-d8 | 93.2 | Limit: 82-121 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Surrogate: 4-Bromofluorobenzene | 95.8 | Limit: 80-116 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1901 | CSM |
| Surrogate: 4-Bromofluorobenzene | 95.8 | Limit: 78-121 | % Rec | 1 | | 12/02/24 0000 | 12/02/24 1901 | 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 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Arsenic, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Barium, total | **0.273** | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Beryllium, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Chromium, total | <0.0080 | 0.0080 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Cobalt, total | **0.0010** | 0.0004 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Copper, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Lead, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Nickel, total | **0.0074** | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Silver, total | <0.0040 | 0.0040 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Thallium, total | <0.0020 | 0.0020 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Vanadium, total | <0.0200 | 0.0200 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 12/02/24 1505 | 12/04/24 2314 | RVV |

**Client Sample ID:** GU 4
**Sample Matrix:** Aqueous
**Lab Sample ID:** 1HL0001-05
**Collected By:** JGH
**Collection Date:** 11/25/2024 12:37

| Determination of Total Metals | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 200.7, Rv. 4.4 (1994)** | | | | | | | | |
| Zinc, total | **0.127** | 0.020 | mg/L | 1 | | 12/02/24 1519 | 12/03/24 2303 | JAR |

**Batch Log Summary**

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 6020A | 1HL0065 | 1HL0065-BLK1 | |
| | | 1HL0065-BS1 | |
| | | 1HL0065-MS1 | 1HK2018-02 |
| | | 1HL0065-MSD1 | 1HK2018-02 |
| | | 1HL0065-PS1 | 1HK2018-02 |
| | | 1HL0001-01 | MW-44 |
| | | 1HL0001-02 | GWD-1 |
| | | 1HL0001-04 | MW-19 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 200.7, Rv. 4.4 (1994) | 1HL0071 | 1HL0071-BLK1 | |
| 200.7 | | 1HL0071-BLK1 | |
| | | 1HL0071-BS1 | |
| EPA 200.7, Rv. 4.4 (1994) | | 1HL0071-BS1 | |
| 200.7 | | 1HL0071-MS1 | 1HK1970-01 |
| EPA 200.7, Rv. 4.4 (1994) | | 1HL0071-MS1 | 1HK1970-01 |
| 200.7 | | 1HL0071-MSD1 | 1HK1970-01 |
| EPA 200.7, Rv. 4.4 (1994) | | 1HL0071-MSD1 | 1HK1970-01 |
| 200.7 | | 1HL0071-PS1 | 1HK1970-01 |
| EPA 200.7, Rv. 4.4 (1994) | | 1HL0071-PS1 | 1HK1970-01 |
| 200.7 | | 1HL0001-03 | MW-14 |
| EPA 200.7, Rv. 4.4 (1994) | | 1HL0001-03 | MW-14 |
| | | 1HL0001-05 | GU 4 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 8260D | 1HL0133 | 1HL0133-BS1 | |
| | | 1HL0133-BSD1 | |
| | | 1HL0133-BLK1 | |
| | | 1HL0001-01 | MW-44 |
| | | 1HL0001-01 | MW-44 |
| | | 1HL0001-01 | MW-44 |
| | | 1HL0001-01 | MW-44 |
| | | 1HL0001-01RE1 | MW-44 |
| | | 1HL0001-02 | GWD-1 |
| | | 1HL0001-02 | GWD-1 |
| | | 1HL0001-04 | MW-19 |
| | | 1HL0001-04 | MW-19 |
| | | 1HL0133-MS1 | 1HL0001-01 |
| | | 1HL0133-MS1 | 1HL0001-01 |
| | | 1HL0133-MS1 | 1HL0001-01 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 8260D | 1HL0133 | 1HL0133-MSD1 | 1HL0001-01 |
| EPA 6020A | 1IA0549 | 1IA0549-BLK1 | |
| | | 1IA0549-BS1 | |
| | | 1HL0001-03 | MW-14 |
| | | 1IA0549-MS1 | 1IA0501-01 |
| | | 1IA0549-MSD1 | 1IA0501-01 |
| | | 1IA0549-PS1 | 1IA0501-01 |

**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 1HL0133 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Blank (1HL0133-BLK1)** | | | Prepared: 12/02/24 00:00 Analyzed: 12/02/24 15:29 | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromomethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Chloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Trichlorofluoromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| Acetone | <10.0 | 10.0 | ug/L | | | | | | | |
| Methyl Iodide | <1.0 | 1.0 | ug/L | | | | | | | |
| Carbon Disulfide | <1.0 | 1.0 | ug/L | | | | | | | |
| Methylene Chloride | <5.0 | 5.0 | ug/L | | | | | | | |
| Acrylonitrile | <5.0 | 5.0 | ug/L | | | | | | | |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Vinyl Acetate | <5.0 | 5.0 | ug/L | | | | | | | |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | | | | | | | |
| Bromochloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Chloroform | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | | | | | | | |
| Benzene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Trichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | | | | | | | |
| Dibromomethane | <1.0 | 1.0 | ug/L | | | | | | | |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | | | | | | | |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | <5.0 | 5.0 | ug/L | | | | | | | |
| Toluene | <1.0 | 1.0 | ug/L | | | | | | | |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | | | | | | | |
| 1,1,2-Trichloroethane | <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 1HL0133 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Blank (1HL0133-BLK1)** | | | Prepared: 12/02/24 00:00 Analyzed: 12/02/24 15:29 | | | | | | | |
| 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* | *48.4* | | ug/L | *50.2* | | *96.4* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *48.4* | | ug/L | *50.2* | | *96.4* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *52.3* | | ug/L | *50.4* | | *104* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *52.3* | | ug/L | *50.4* | | *104* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *47.0* | | ug/L | *50.5* | | *93.1* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *47.0* | | ug/L | *50.5* | | *93.1* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *48.4* | | ug/L | *50.2* | | *96.5* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *48.4* | | ug/L | *50.2* | | *96.5* | *80-116* | | | |
| **LCS (1HL0133-BS1)** | | | Prepared: 12/02/24 00:00 Analyzed: 12/02/24 14:45 | | | | | | | |
| Chloromethane | 57.31 | 1.0 | ug/L | 50.5 | | 113 | 63-155 | | | |
| Vinyl Chloride | 57.97 | 1.0 | ug/L | 50.4 | | 115 | 70-154 | | | |
| Bromomethane | 60.19 | 1.0 | ug/L | 50.2 | | 120 | 52-176 | | | |
| Chloroethane | 49.44 | 1.0 | ug/L | 50.5 | | 97.8 | 72-148 | | | |
| Trichlorofluoromethane | 45.23 | 1.0 | ug/L | 50.5 | | 89.5 | 70-152 | | | |
| 1,1-Dichloroethylene | 30.05 | 1.0 | ug/L | 30.1 | | 99.9 | 70-148 | | | |
| Acetone | 89.90 | 10.0 | ug/L | 100 | | 89.9 | 43-172 | | | |
| Methyl Iodide | 92.46 | 1.0 | ug/L | 100 | | 92.5 | 69-170 | | | |
| Carbon Disulfide | 92.78 | 1.0 | ug/L | 100 | | 92.8 | 72-162 | | | |
| Methylene Chloride | 30.28 | 5.0 | ug/L | 30.1 | | 101 | 68-142 | | | |
| Acrylonitrile | 41.04 | 5.0 | ug/L | 50.2 | | 81.8 | 56-135 | | | |
| trans-1,2-Dichloroethylene | 31.50 | 1.0 | ug/L | 30.1 | | 105 | 66-148 | | | |
| 1,1-Dichloroethane | 31.42 | 1.0 | ug/L | 30.1 | | 105 | 66-143 | | | |
| Vinyl Acetate | 148.9 | 5.0 | ug/L | 156 | | 95.6 | 43-153 | | | |
| cis-1,2-Dichloroethylene | 30.87 | 1.0 | ug/L | 30.2 | | 102 | 71-149 | | | |
| 2-Butanone (MEK) | 81.76 | 10.0 | ug/L | 100 | | 81.8 | 52-159 | | | |
| Bromochloromethane | 30.55 | 1.0 | ug/L | 30.2 | | 101 | 69-143 | | | |
| Chloroform | 30.31 | 1.0 | ug/L | 30.0 | | 101 | 69-144 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HL0133 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **LCS (1HL0133-BS1)** | | | | Prepared: 12/02/24 00:00 Analyzed: 12/02/24 14:45 | | | | | | |
| 1,1,1-Trichloroethane | 30.06 | 1.0 | ug/L | 30.1 | | 100 | 62-129 | | | |
| Carbon Tetrachloride | 30.06 | 1.0 | ug/L | 30.1 | | 100 | 63-141 | | | |
| Benzene | 31.96 | 1.0 | ug/L | 30.3 | | 106 | 71-134 | | | |
| 1,2-Dichloroethane | 31.23 | 1.0 | ug/L | 30.1 | | 104 | 72-132 | | | |
| Trichloroethylene | 30.10 | 1.0 | ug/L | 30.1 | | 100 | 71-135 | | | |
| 1,2-Dichloropropane | 30.70 | 1.0 | ug/L | 30.1 | | 102 | 69-136 | | | |
| Dibromomethane | 28.62 | 1.0 | ug/L | 30.2 | | 94.7 | 73-147 | | | |
| Bromodichloromethane | 29.72 | 1.0 | ug/L | 30.1 | | 98.9 | 68-129 | | | |
| cis-1,3-Dichloropropene | 29.33 | 1.0 | ug/L | 30.1 | | 97.6 | 65-134 | | | |
| 4-Methyl-2-pentanone (MIBK) | 87.40 | 5.0 | ug/L | 100 | | 87.4 | 58-147 | | | |
| Toluene | 30.36 | 1.0 | ug/L | 30.3 | | 100 | 72-133 | | | |
| trans-1,3-Dichloropropene | 28.52 | 1.0 | ug/L | 30.0 | | 94.9 | 67-130 | | | |
| 1,1,2-Trichloroethane | 28.83 | 1.0 | ug/L | 30.1 | | 95.9 | 69-135 | | | |
| Tetrachloroethylene | 33.65 | 1.0 | ug/L | 30.1 | | 112 | 69-130 | | | |
| 2-Hexanone (MBK) | 90.72 | 5.0 | ug/L | 100 | | 90.7 | 55-144 | | | |
| Dibromochloromethane | 32.09 | 1.0 | ug/L | 30.0 | | 107 | 73-127 | | | |
| 1,2-Dibromoethane | 31.62 | 1.0 | ug/L | 30.1 | | 105 | 67-132 | | | |
| Chlorobenzene | 33.04 | 1.0 | ug/L | 30.0 | | 110 | 72-123 | | | |
| 1,1,1,2-Tetrachloroethane | 33.67 | 1.0 | ug/L | 30.2 | | 111 | 73-127 | | | |
| Ethylbenzene | 34.37 | 1.0 | ug/L | 30.1 | | 114 | 71-127 | | | |
| Xylenes, total | 99.80 | 2.0 | ug/L | 90.6 | | 110 | 74-127 | | | |
| Styrene | 34.09 | 1.0 | ug/L | 30.2 | | 113 | 66-126 | | | |
| Bromoform | 30.59 | 1.0 | ug/L | 30.1 | | 102 | 68-130 | | | |
| 1,2,3-Trichloropropane | 29.91 | 1.0 | ug/L | 30.2 | | 99.0 | 63-136 | | | |
| trans-1,4-Dichloro-2-butene | 93.41 | 5.0 | ug/L | 100 | | 93.4 | 54-134 | | | |
| 1,1,2,2-Tetrachloroethane | 32.27 | 1.0 | ug/L | 30.1 | | 107 | 61-131 | | | |
| 1,4-Dichlorobenzene | 33.66 | 1.0 | ug/L | 30.1 | | 112 | 70-129 | | | |
| 1,2-Dichlorobenzene | 33.17 | 1.0 | ug/L | 30.1 | | 110 | 69-126 | | | |
| 1,2-Dibromo-3-chloropropane | 25.30 | 5.0 | ug/L | 30.1 | | 84.1 | 50-143 | | | |
| *Surrogate: Dibromofluoromethane* | *48.7* | | ug/L | *50.2* | | *97.0* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *48.7* | | ug/L | *50.2* | | *97.0* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *50.2* | | ug/L | *50.4* | | *99.8* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *50.2* | | ug/L | *50.4* | | *99.8* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *48.5* | | ug/L | *50.5* | | *96.2* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *48.5* | | ug/L | *50.5* | | *96.2* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *48.4* | | ug/L | *50.2* | | *96.4* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *48.4* | | ug/L | *50.2* | | *96.4* | *80-116* | | | |
| **LCS Dup (1HL0133-BSD1)** | | | | Prepared: 12/02/24 00:00 Analyzed: 12/02/24 15:07 | | | | | | |
| Chloromethane | 51.45 | 1.0 | ug/L | 50.5 | | 102 | 63-155 | 10.8 | 24 | |
| Vinyl Chloride | 51.96 | 1.0 | ug/L | 50.4 | | 103 | 70-154 | 10.9 | 25 | |
| Bromomethane | 54.13 | 1.0 | ug/L | 50.2 | | 108 | 52-176 | 10.6 | 27 | |
| Chloroethane | 45.56 | 1.0 | ug/L | 50.5 | | 90.2 | 72-148 | 8.17 | 25 | |
| Trichlorofluoromethane | 41.60 | 1.0 | ug/L | 50.5 | | 82.4 | 70-152 | 8.36 | 26 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HL0133 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **LCS Dup (1HL0133-BSD1)** | | | Prepared: 12/02/24 00:00 Analyzed: 12/02/24 15:07 | | | | | | | |
| 1,1-Dichloroethylene | 28.16 | 1.0 | ug/L | 30.1 | | 93.6 | 70-148 | 6.49 | 24 | |
| Acetone | 101.8 | 10.0 | ug/L | 100 | | 102 | 43-172 | 12.4 | 30 | |
| Methyl Iodide | 86.78 | 1.0 | ug/L | 100 | | 86.8 | 69-170 | 6.34 | 30 | |
| Carbon Disulfide | 86.82 | 1.0 | ug/L | 100 | | 86.8 | 72-162 | 6.64 | 24 | |
| Methylene Chloride | 29.13 | 5.0 | ug/L | 30.1 | | 96.9 | 68-142 | 3.87 | 21 | |
| Acrylonitrile | 46.29 | 5.0 | ug/L | 50.2 | | 92.2 | 56-135 | 12.0 | 16 | |
| trans-1,2-Dichloroethylene | 30.45 | 1.0 | ug/L | 30.1 | | 101 | 66-148 | 3.39 | 27 | |
| 1,1-Dichloroethane | 30.67 | 1.0 | ug/L | 30.1 | | 102 | 66-143 | 2.42 | 24 | |
| Vinyl Acetate | 159.2 | 5.0 | ug/L | 156 | | 102 | 43-153 | 6.70 | 30 | |
| cis-1,2-Dichloroethylene | 30.99 | 1.0 | ug/L | 30.2 | | 103 | 71-149 | 0.388 | 26 | |
| 2-Butanone (MEK) | 99.10 | 10.0 | ug/L | 100 | | 99.1 | 52-159 | 19.2 | 27 | |
| Bromochloromethane | 31.26 | 1.0 | ug/L | 30.2 | | 103 | 69-143 | 2.30 | 23 | |
| Chloroform | 30.64 | 1.0 | ug/L | 30.0 | | 102 | 69-144 | 1.08 | 23 | |
| 1,1,1-Trichloroethane | 29.99 | 1.0 | ug/L | 30.1 | | 99.7 | 62-129 | 0.233 | 24 | |
| Carbon Tetrachloride | 30.07 | 1.0 | ug/L | 30.1 | | 100 | 63-141 | 0.0333 | 25 | |
| Benzene | 31.72 | 1.0 | ug/L | 30.3 | | 105 | 71-134 | 0.754 | 24 | |
| 1,2-Dichloroethane | 32.28 | 1.0 | ug/L | 30.1 | | 107 | 72-132 | 3.31 | 24 | |
| Trichloroethylene | 30.25 | 1.0 | ug/L | 30.1 | | 101 | 71-135 | 0.497 | 24 | |
| 1,2-Dichloropropane | 31.32 | 1.0 | ug/L | 30.1 | | 104 | 69-136 | 2.00 | 24 | |
| Dibromomethane | 30.50 | 1.0 | ug/L | 30.2 | | 101 | 73-147 | 6.36 | 25 | |
| Bromodichloromethane | 30.38 | 1.0 | ug/L | 30.1 | | 101 | 68-129 | 2.20 | 22 | |
| cis-1,3-Dichloropropene | 30.13 | 1.0 | ug/L | 30.1 | | 100 | 65-134 | 2.69 | 23 | |
| 4-Methyl-2-pentanone (MIBK) | 107.8 | 5.0 | ug/L | 100 | | 108 | 58-147 | 20.9 | 27 | |
| Toluene | 30.71 | 1.0 | ug/L | 30.3 | | 101 | 72-133 | 1.15 | 24 | |
| trans-1,3-Dichloropropene | 29.85 | 1.0 | ug/L | 30.0 | | 99.4 | 67-130 | 4.56 | 24 | |
| 1,1,2-Trichloroethane | 30.90 | 1.0 | ug/L | 30.1 | | 103 | 69-135 | 6.93 | 23 | |
| Tetrachloroethylene | 33.64 | 1.0 | ug/L | 30.1 | | 112 | 69-130 | 0.0297 | 25 | |
| 2-Hexanone (MBK) | 116.5 | 5.0 | ug/L | 100 | | 116 | 55-144 | 24.9 | 25 | |
| Dibromochloromethane | 33.35 | 1.0 | ug/L | 30.0 | | 111 | 73-127 | 3.85 | 22 | |
| 1,2-Dibromoethane | 34.13 | 1.0 | ug/L | 30.1 | | 113 | 67-132 | 7.63 | 24 | |
| Chlorobenzene | 33.70 | 1.0 | ug/L | 30.0 | | 112 | 72-123 | 1.98 | 23 | |
| 1,1,1,2-Tetrachloroethane | 34.45 | 1.0 | ug/L | 30.2 | | 114 | 73-127 | 2.29 | 24 | |
| Ethylbenzene | 34.91 | 1.0 | ug/L | 30.1 | | 116 | 71-127 | 1.56 | 26 | |
| Xylenes, total | 102.0 | 2.0 | ug/L | 90.6 | | 112 | 74-127 | 2.15 | 25 | |
| Styrene | 35.40 | 1.0 | ug/L | 30.2 | | 117 | 66-126 | 3.77 | 23 | |
| Bromoform | 33.87 | 1.0 | ug/L | 30.1 | | 113 | 68-130 | 10.2 | 23 | |
| 1,2,3-Trichloropropane | 34.67 | 1.0 | ug/L | 30.2 | | 115 | 63-136 | 14.7 | 24 | |
| trans-1,4-Dichloro-2-butene | 108.2 | 5.0 | ug/L | 100 | | 108 | 54-134 | 14.7 | 27 | |
| 1,1,2,2-Tetrachloroethane | 36.66 | 1.0 | ug/L | 30.1 | | 122 | 61-131 | 12.7 | 29 | |
| 1,4-Dichlorobenzene | 34.87 | 1.0 | ug/L | 30.1 | | 116 | 70-129 | 3.53 | 24 | |
| 1,2-Dichlorobenzene | 34.13 | 1.0 | ug/L | 30.1 | | 114 | 69-126 | 2.85 | 26 | |
| 1,2-Dibromo-3-chloropropane | 31.78 | 5.0 | ug/L | 30.1 | | 106 | 50-143 | 22.7 | 30 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HL0133 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **LCS Dup (1HL0133-BSD1)** | | | Prepared: 12/02/24 00:00 Analyzed: 12/02/24 15:07 | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *48.5* | | ug/L | *50.2* | | *96.6* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *48.5* | | ug/L | *50.2* | | *96.6* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *51.2* | | ug/L | *50.4* | | *102* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *51.2* | | ug/L | *50.4* | | *102* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *48.7* | | ug/L | *50.5* | | *96.5* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *48.7* | | ug/L | *50.5* | | *96.5* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *48.6* | | ug/L | *50.2* | | *96.8* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *48.6* | | ug/L | *50.2* | | *96.8* | *80-116* | | | |
| **Matrix Spike (1HL0133-MS1)** | **Source: 1HL0001-01** | | Prepared: 12/02/24 00:00 Analyzed: 12/03/24 04:00 | | | | | | | |
| Chloromethane | 636.4 | 10.0 | ug/L | 505 | ND | 126 | 61-152 | | | |
| Vinyl Chloride | 647.5 | 10.0 | ug/L | 504 | ND | 128 | 66-149 | | | |
| Bromomethane | 633.5 | 10.0 | ug/L | 502 | ND | 126 | 43-171 | | | |
| Chloroethane | 571.2 | 10.0 | ug/L | 505 | ND | 113 | 69-148 | | | |
| Trichlorofluoromethane | 527.6 | 10.0 | ug/L | 505 | ND | 104 | 62-163 | | | |
| 1,1-Dichloroethylene | 359.0 | 10.0 | ug/L | 301 | ND | 119 | 70-148 | | | |
| Acetone | 1305 | 100 | ug/L | 1000 | ND | 131 | 45-173 | | | |
| Methyl Iodide | 1025 | 10.0 | ug/L | 1000 | ND | 102 | 62-167 | | | |
| Carbon Disulfide | 1089 | 10.0 | ug/L | 1000 | ND | 109 | 71-163 | | | |
| Methylene Chloride | 355.8 | 50.0 | ug/L | 301 | ND | 118 | 69-140 | | | |
| Acrylonitrile | 219.1 | 20.0 | ug/L | 502 | ND | 43.6 | 38-147 | | | |
| trans-1,2-Dichloroethylene | 381.7 | 10.0 | ug/L | 301 | ND | 127 | 69-144 | | | |
| 1,1-Dichloroethane | 387.0 | 10.0 | ug/L | 301 | ND | 129 | 70-138 | | | |
| Vinyl Acetate | 1758 | 50.0 | ug/L | 1560 | ND | 113 | 58-142 | | | |
| cis-1,2-Dichloroethylene | 373.9 | 10.0 | ug/L | 302 | ND | 124 | 68-151 | | | |
| 2-Butanone (MEK) | 1265 | 100 | ug/L | 1000 | ND | 126 | 50-160 | | | |
| Bromochloromethane | 396.6 | 10.0 | ug/L | 302 | ND | 131 | 65-143 | | | |
| Chloroform | 378.2 | 10.0 | ug/L | 300 | ND | 126 | 71-143 | | | |
| 1,1,1-Trichloroethane | 381.6 | 10.0 | ug/L | 301 | ND | 127 | 63-133 | | | |
| Carbon Tetrachloride | 378.9 | 10.0 | ug/L | 301 | ND | 126 | 63-142 | | | |
| Benzene | 353.5 | 10.0 | ug/L | 303 | ND | 117 | 69-133 | | | |
| 1,2-Dichloroethane | 359.1 | 10.0 | ug/L | 301 | ND | 119 | 63-138 | | | |
| Trichloroethylene | 337.8 | 10.0 | ug/L | 301 | ND | 112 | 71-133 | | | |
| 1,2-Dichloropropane | 346.6 | 10.0 | ug/L | 301 | ND | 115 | 69-132 | | | |
| Dibromomethane | 336.9 | 10.0 | ug/L | 302 | ND | 111 | 70-147 | | | |
| Bromodichloromethane | 334.3 | 10.0 | ug/L | 301 | ND | 111 | 67-130 | | | |
| cis-1,3-Dichloropropene | 318.5 | 10.0 | ug/L | 301 | ND | 106 | 61-126 | | | |
| 4-Methyl-2-pentanone (MIBK) | 1179 | 50.0 | ug/L | 1000 | ND | 118 | 55-147 | | | |
| Toluene | 341.3 | 10.0 | ug/L | 303 | ND | 113 | 71-133 | | | |
| trans-1,3-Dichloropropene | 314.5 | 10.0 | ug/L | 300 | ND | 105 | 63-124 | | | |
| 1,1,2-Trichloroethane | 337.1 | 10.0 | ug/L | 301 | ND | 112 | 69-133 | | | |
| Tetrachloroethylene | 354.7 | 10.0 | ug/L | 301 | ND | 118 | 70-124 | | | |
| 2-Hexanone (MBK) | 1213 | 50.0 | ug/L | 1000 | ND | 121 | 53-141 | | | |
| Dibromochloromethane | 355.0 | 10.0 | ug/L | 300 | ND | 118 | 74-122 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HL0133 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Matrix Spike (1HL0133-MS1)** | **Source: 1HL0001-01** | Prepared: 12/02/24 00:00 Analyzed: 12/03/24 04:00 | | | | | | | | |
| 1,2-Dibromoethane | 358.8 | 10.0 | ug/L | 301 | ND | 119 | 66-127 | | | |
| Chlorobenzene | 356.7 | 10.0 | ug/L | 300 | ND | 119 | 76-116 | | | M1 |
| 1,1,1,2-Tetrachloroethane | 362.3 | 10.0 | ug/L | 302 | ND | 120 | 77-121 | | | |
| Ethylbenzene | 374.5 | 10.0 | ug/L | 301 | ND | 124 | 73-124 | | | |
| Xylenes, total | 1091 | 20.0 | ug/L | 906 | ND | 120 | 75-123 | | | |
| Styrene | 373.6 | 10.0 | ug/L | 302 | ND | 124 | 70-120 | | | M1 |
| Bromoform | 353.5 | 10.0 | ug/L | 301 | ND | 118 | 70-124 | | | |
| 1,2,3-Trichloropropane | 373.8 | 10.0 | ug/L | 302 | ND | 124 | 62-135 | | | |
| trans-1,4-Dichloro-2-butene | 1093 | 50.0 | ug/L | 1000 | ND | 109 | 50-120 | | | |
| 1,1,2,2-Tetrachloroethane | 389.5 | 10.0 | ug/L | 301 | ND | 130 | 63-126 | | | M1 |
| 1,4-Dichlorobenzene | 363.8 | 10.0 | ug/L | 301 | ND | 121 | 72-119 | | | M1 |
| 1,2-Dichlorobenzene | 357.9 | 10.0 | ug/L | 301 | ND | 119 | 71-117 | | | M1 |
| 1,2-Dibromo-3-chloropropane | 328.8 | 50.0 | ug/L | 301 | ND | 109 | 49-134 | | | |
| *Surrogate: Dibromofluoromethane* | *575* | | ug/L | *502* | | *115* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *575* | | ug/L | *502* | | *115* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *607* | | ug/L | *504* | | *120* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *607* | | ug/L | *504* | | *120* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *501* | | ug/L | *505* | | *99.3* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *501* | | ug/L | *505* | | *99.3* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *495* | | ug/L | *502* | | *98.6* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *495* | | ug/L | *502* | | *98.6* | *80-116* | | | |
| **Matrix Spike Dup (1HL0133-MSD1)** | **Source: 1HL0001-01** | Prepared: 12/02/24 00:00 Analyzed: 12/03/24 10:22 | | | | | | | | |
| Chloromethane | 666.3 | 10.0 | ug/L | 505 | ND | 132 | 61-152 | 4.59 | 26 | |
| Vinyl Chloride | 506.6 | 10.0 | ug/L | 504 | ND | 100 | 66-149 | 24.4 | 23 | R1 |
| Bromomethane | 550.0 | 10.0 | ug/L | 502 | ND | 110 | 43-171 | 14.1 | 29 | |
| Chloroethane | 569.4 | 10.0 | ug/L | 505 | ND | 113 | 69-148 | 0.316 | 25 | |
| Trichlorofluoromethane | 526.6 | 10.0 | ug/L | 505 | ND | 104 | 62-163 | 0.190 | 25 | |
| 1,1-Dichloroethylene | 355.6 | 10.0 | ug/L | 301 | ND | 118 | 70-148 | 0.952 | 22 | |
| Acetone | 1284 | 100 | ug/L | 1000 | ND | 128 | 45-173 | 1.61 | 30 | |
| Methyl Iodide | 682.4 | 10.0 | ug/L | 1000 | ND | 68.2 | 62-167 | 40.1 | 24 | R1 |
| Carbon Disulfide | 1072 | 10.0 | ug/L | 1000 | ND | 107 | 71-163 | 1.58 | 22 | |
| Methylene Chloride | 358.3 | 50.0 | ug/L | 301 | ND | 119 | 69-140 | 0.700 | 19 | |
| Acrylonitrile | 551.4 | 50.0 | ug/L | 502 | ND | 110 | 38-147 | 86.2 | 30 | R1 |
| trans-1,2-Dichloroethylene | 375.1 | 10.0 | ug/L | 301 | ND | 125 | 69-144 | 1.74 | 22 | |
| 1,1-Dichloroethane | 380.2 | 10.0 | ug/L | 301 | ND | 126 | 70-138 | 1.77 | 20 | |
| Vinyl Acetate | 1688 | 50.0 | ug/L | 1560 | ND | 108 | 58-142 | 4.06 | 24 | |
| cis-1,2-Dichloroethylene | 357.0 | 10.0 | ug/L | 302 | ND | 118 | 68-151 | 4.62 | 22 | |
| 2-Butanone (MEK) | 1190 | 100 | ug/L | 1000 | ND | 119 | 50-160 | 6.07 | 23 | |
| Bromochloromethane | 380.9 | 10.0 | ug/L | 302 | ND | 126 | 65-143 | 4.04 | 22 | |
| Chloroform | 363.5 | 10.0 | ug/L | 300 | ND | 121 | 71-143 | 3.96 | 21 | |
| 1,1,1-Trichloroethane | 352.1 | 10.0 | ug/L | 301 | ND | 117 | 63-133 | 8.04 | 23 | |
| Carbon Tetrachloride | 352.7 | 10.0 | ug/L | 301 | ND | 117 | 63-142 | 7.16 | 22 | |
| Benzene | 346.5 | 10.0 | ug/L | 303 | ND | 115 | 69-133 | 2.00 | 18 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HL0133 - EPA 5030B - EPA 8260D** | | | | | | | | | | |
| **Matrix Spike Dup (1HL0133-MSD1)** | **Source: 1HL0001-01** | Prepared: 12/02/24 00:00 Analyzed: 12/03/24 10:22 | | | | | | | | |
| 1,2-Dichloroethane | 353.9 | 10.0 | ug/L | 301 | ND | 118 | 63-138 | 1.46 | 20 | |
| Trichloroethylene | 324.6 | 10.0 | ug/L | 301 | ND | 108 | 71-133 | 3.99 | 23 | |
| 1,2-Dichloropropane | 335.0 | 10.0 | ug/L | 301 | ND | 111 | 69-132 | 3.40 | 20 | |
| Dibromomethane | 330.4 | 10.0 | ug/L | 302 | ND | 109 | 70-147 | 1.95 | 22 | |
| Bromodichloromethane | 328.0 | 10.0 | ug/L | 301 | ND | 109 | 67-130 | 1.90 | 21 | |
| cis-1,3-Dichloropropene | 309.4 | 10.0 | ug/L | 301 | ND | 103 | 61-126 | 2.90 | 21 | |
| 4-Methyl-2-pentanone (MIBK) | 1238 | 50.0 | ug/L | 1000 | ND | 124 | 55-147 | 4.86 | 23 | |
| Toluene | 336.9 | 10.0 | ug/L | 303 | ND | 111 | 71-133 | 1.30 | 19 | |
| trans-1,3-Dichloropropene | 304.7 | 10.0 | ug/L | 300 | ND | 101 | 63-124 | 3.17 | 21 | |
| 1,1,2-Trichloroethane | 328.0 | 10.0 | ug/L | 301 | ND | 109 | 69-133 | 2.74 | 19 | |
| Tetrachloroethylene | 334.0 | 10.0 | ug/L | 301 | ND | 111 | 70-124 | 6.01 | 24 | |
| 2-Hexanone (MBK) | 1281 | 50.0 | ug/L | 1000 | ND | 128 | 53-141 | 5.43 | 24 | |
| Dibromochloromethane | 341.1 | 10.0 | ug/L | 300 | ND | 114 | 74-122 | 3.99 | 21 | |
| 1,2-Dibromoethane | 346.5 | 10.0 | ug/L | 301 | ND | 115 | 66-127 | 3.49 | 23 | |
| Chlorobenzene | 344.6 | 10.0 | ug/L | 300 | ND | 115 | 76-116 | 3.45 | 21 | |
| 1,1,1,2-Tetrachloroethane | 345.9 | 10.0 | ug/L | 302 | ND | 115 | 77-121 | 4.63 | 25 | |
| Ethylbenzene | 362.4 | 10.0 | ug/L | 301 | ND | 120 | 73-124 | 3.28 | 20 | |
| Xylenes, total | 1033 | 20.0 | ug/L | 906 | ND | 114 | 75-123 | 5.45 | 20 | |
| Styrene | 355.3 | 10.0 | ug/L | 302 | ND | 118 | 70-120 | 5.02 | 23 | |
| Bromoform | 342.7 | 10.0 | ug/L | 301 | ND | 114 | 70-124 | 3.10 | 22 | |
| 1,2,3-Trichloropropane | 363.2 | 10.0 | ug/L | 302 | ND | 120 | 62-135 | 2.88 | 28 | |
| trans-1,4-Dichloro-2-butene | 1045 | 50.0 | ug/L | 1000 | ND | 104 | 50-120 | 4.49 | 26 | |
| 1,1,2,2-Tetrachloroethane | 392.6 | 10.0 | ug/L | 301 | ND | 131 | 63-126 | 0.793 | 24 | M1 |
| 1,4-Dichlorobenzene | 351.7 | 10.0 | ug/L | 301 | ND | 117 | 72-119 | 3.38 | 24 | |
| 1,2-Dichlorobenzene | 351.1 | 10.0 | ug/L | 301 | ND | 117 | 71-117 | 1.92 | 24 | |
| 1,2-Dibromo-3-chloropropane | 327.8 | 50.0 | ug/L | 301 | ND | 109 | 49-134 | 0.305 | 28 | |
| *Surrogate: Dibromofluoromethane* | *557* | | ug/L | *502* | | *111* | *57-134* | | | |
| *Surrogate: Dibromofluoromethane* | *557* | | ug/L | *502* | | *111* | *75-136* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *575* | | ug/L | *504* | | *114* | *53-140* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *575* | | ug/L | *504* | | *114* | *61-142* | | | |
| *Surrogate: Toluene-d8* | *511* | | ug/L | *505* | | *101* | *86-114* | | | |
| *Surrogate: Toluene-d8* | *511* | | ug/L | *505* | | *101* | *82-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *483* | | ug/L | *502* | | *96.2* | *78-121* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *483* | | ug/L | *502* | | *96.2* | *80-116* | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HL0065 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Blank (1HL0065-BLK1)** | Prepared: 12/02/24 15:05 Analyzed: 12/04/24 21:42 | | | | | | | | | |
| 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 | | | | | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HL0065 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Blank (1HL0065-BLK1)** | | | | Prepared: 12/02/24 15:05 Analyzed: 12/04/24 21:42 | | | | | | |
| 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 (1HL0065-BS1)** | | | | Prepared: 12/02/24 15:05 Analyzed: 12/04/24 21:49 | | | | | | |
| Antimony, total | 0.100 | 0.0020 | mg/L | 0.100 | | 100 | 80-120 | | | |
| Arsenic, total | 0.0997 | 0.0040 | mg/L | 0.100 | | 99.7 | 80-120 | | | |
| Barium, total | 0.112 | 0.0040 | mg/L | 0.100 | | 112 | 80-120 | | | |
| Beryllium, total | 0.105 | 0.0040 | mg/L | 0.100 | | 105 | 80-120 | | | |
| Cadmium, total | 0.0961 | 0.0008 | mg/L | 0.100 | | 96.1 | 80-120 | | | |
| Chromium, total | 0.0936 | 0.0080 | mg/L | 0.100 | | 93.6 | 80-120 | | | |
| Cobalt, total | 0.103 | 0.0004 | mg/L | 0.100 | | 103 | 80-120 | | | |
| Copper, total | 0.0971 | 0.0040 | mg/L | 0.100 | | 97.1 | 80-120 | | | |
| Lead, total | 0.0961 | 0.0040 | mg/L | 0.100 | | 96.1 | 80-120 | | | |
| Nickel, total | 0.0985 | 0.0040 | mg/L | 0.100 | | 98.5 | 80-120 | | | |
| Selenium, total | 0.1022 | 0.0040 | mg/L | 0.100 | | 102 | 80-120 | | | |
| Silver, total | 0.101 | 0.0040 | mg/L | 0.100 | | 101 | 80-120 | | | |
| Thallium, total | 0.0970 | 0.0020 | mg/L | 0.100 | | 97.0 | 80-120 | | | |
| Vanadium, total | 0.100 | 0.0200 | mg/L | 0.100 | | 100 | 80-120 | | | |
| Zinc, total | 0.101 | 0.0200 | mg/L | 0.100 | | 101 | 80-120 | | | |
| **Matrix Spike (1HL0065-MS1)** | **Source: 1HK2018-02** | | | Prepared: 12/02/24 15:05 Analyzed: 12/04/24 22:19 | | | | | | |
| Antimony, total | 0.0999 | 0.0020 | mg/L | 0.100 | ND | 99.9 | 75-125 | | | |
| Arsenic, total | 0.101 | 0.0040 | mg/L | 0.100 | 0.0051 | 95.4 | 75-125 | | | |
| Barium, total | 0.517 | 0.0040 | mg/L | 0.100 | 0.415 | 102 | 75-125 | | | |
| Beryllium, total | 0.102 | 0.0040 | mg/L | 0.100 | 0.0001 | 102 | 75-125 | | | |
| Cadmium, total | 0.0934 | 0.0008 | mg/L | 0.100 | ND | 93.4 | 75-125 | | | |
| Chromium, total | 0.0907 | 0.0080 | mg/L | 0.100 | 0.0011 | 89.6 | 75-125 | | | |
| Cobalt, total | 0.0980 | 0.0004 | mg/L | 0.100 | 0.0006 | 97.4 | 75-125 | | | |
| Copper, total | 0.0874 | 0.0040 | mg/L | 0.100 | 0.0010 | 86.4 | 75-125 | | | |
| Lead, total | 0.0934 | 0.0040 | mg/L | 0.100 | ND | 93.4 | 75-125 | | | |
| Nickel, total | 0.100 | 0.0040 | mg/L | 0.100 | 0.0072 | 93.0 | 75-125 | | | |
| Selenium, total | 0.0981 | 0.0040 | mg/L | 0.100 | ND | 98.1 | 75-125 | | | |
| Silver, total | 0.0969 | 0.0040 | mg/L | 0.100 | ND | 96.9 | 75-125 | | | |
| Thallium, total | 0.0955 | 0.0020 | mg/L | 0.100 | ND | 95.5 | 75-125 | | | |
| Vanadium, total | 0.0953 | 0.0200 | mg/L | 0.100 | ND | 95.3 | 75-125 | | | |
| Zinc, total | 0.350 | 0.0200 | mg/L | 0.100 | 0.262 | 88.1 | 75-125 | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HL0065 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Matrix Spike Dup (1HL0065-MSD1)** | **Source: 1HK2018-02** | | Prepared: 12/02/24 15:05 Analyzed: 12/04/24 22:25 | | | | | | | |
| Antimony, total | 0.100 | 0.0020 | mg/L | 0.100 | ND | 100 | 75-125 | 0.0980 | 20 | |
| Arsenic, total | 0.104 | 0.0040 | mg/L | 0.100 | 0.0051 | 98.5 | 75-125 | 3.00 | 20 | |
| Barium, total | 0.522 | 0.0040 | mg/L | 0.100 | 0.415 | 107 | 75-125 | 1.12 | 20 | |
| Beryllium, total | 0.100 | 0.0040 | mg/L | 0.100 | 0.0001 | 100 | 75-125 | 1.27 | 20 | |
| Cadmium, total | 0.0944 | 0.0008 | mg/L | 0.100 | ND | 94.4 | 75-125 | 1.05 | 20 | |
| Chromium, total | 0.0908 | 0.0080 | mg/L | 0.100 | 0.0011 | 89.6 | 75-125 | 0.0714 | 20 | |
| Cobalt, total | 0.0985 | 0.0004 | mg/L | 0.100 | 0.0006 | 97.9 | 75-125 | 0.510 | 20 | |
| Copper, total | 0.0893 | 0.0040 | mg/L | 0.100 | 0.0010 | 88.3 | 75-125 | 2.11 | 20 | |
| Lead, total | 0.0937 | 0.0040 | mg/L | 0.100 | ND | 93.7 | 75-125 | 0.307 | 20 | |
| Nickel, total | 0.103 | 0.0040 | mg/L | 0.100 | 0.0072 | 96.1 | 75-125 | 3.00 | 20 | |
| Selenium, total | 0.0993 | 0.0040 | mg/L | 0.100 | ND | 99.3 | 75-125 | 1.21 | 20 | |
| Silver, total | 0.0997 | 0.0040 | mg/L | 0.100 | ND | 99.7 | 75-125 | 2.85 | 20 | |
| Thallium, total | 0.0954 | 0.0020 | mg/L | 0.100 | ND | 95.4 | 75-125 | 0.100 | 20 | |
| Vanadium, total | 0.0968 | 0.0200 | mg/L | 0.100 | ND | 96.8 | 75-125 | 1.56 | 20 | |
| Zinc, total | 0.358 | 0.0200 | mg/L | 0.100 | 0.262 | 96.3 | 75-125 | 2.32 | 20 | |
| **Post Spike (1HL0065-PS1)** | **Source: 1HK2018-02** | | Prepared: 12/02/24 15:05 Analyzed: 12/04/24 22:31 | | | | | | | |
| Antimony, total | 0.0795 | | mg/L | 0.0800 | 0.0002 | 99.1 | 80-120 | | | |
| Arsenic, total | 0.0825 | | mg/L | 0.0800 | 0.0050 | 96.8 | 80-120 | | | |
| Barium, total | 0.500 | | mg/L | 0.0800 | 0.407 | 117 | 80-120 | | | |
| Beryllium, total | 0.0809 | | mg/L | 0.0800 | 0.0001 | 101 | 80-120 | | | |
| Cadmium, total | 0.0733 | | mg/L | 0.0800 | 0.00007 | 91.5 | 80-120 | | | |
| Chromium, total | 0.0722 | | mg/L | 0.0800 | 0.0011 | 88.8 | 80-120 | | | |
| Cobalt, total | 0.0797 | | mg/L | 0.0800 | 0.0006 | 98.9 | 80-120 | | | |
| Copper, total | 0.0726 | | mg/L | 0.0800 | 0.0010 | 89.5 | 80-120 | | | |
| Lead, total | 0.0750 | | mg/L | 0.0800 | 0.0003 | 93.4 | 80-120 | | | |
| Nickel, total | 0.0820 | | mg/L | 0.0800 | 0.0071 | 93.7 | 80-120 | | | |
| Selenium, total | 0.0792 | | mg/L | 0.0800 | 0.0014 | 97.2 | 80-120 | | | |
| Silver, total | 0.0790 | | mg/L | 0.0800 | 0.00009 | 98.6 | 80-120 | | | |
| Thallium, total | 0.0758 | | mg/L | 0.0800 | 0.0001 | 94.6 | 80-120 | | | |
| Vanadium, total | 0.0798 | | mg/L | 0.0800 | 0.0054 | 92.9 | 80-120 | | | |
| Zinc, total | 0.333 | | mg/L | 0.0800 | 0.256 | 95.1 | 80-120 | | | |
| **Batch 1HL0071 - EPA 200.2 Total ICP-OES (200.7) - EPA 200.7, Rv. 4.4 (1994)** | | | | | | | | | | |
| **Blank (1HL0071-BLK1)** | | | Prepared: 12/02/24 15:19 Analyzed: 12/03/24 21:34 | | | | | | | |
| Cadmium, total | <0.005 | 0.005 | mg/L | | | | | | | |
| Calcium, total | <0.1 | 0.1 | mg/L | | | | | | | |
| Zinc, total | <0.020 | 0.020 | mg/L | | | | | | | |
| **LCS (1HL0071-BS1)** | | | Prepared: 12/02/24 15:19 Analyzed: 12/03/24 21:39 | | | | | | | |
| Cadmium, total | 0.187 | 0.005 | mg/L | 0.200 | | 93.3 | 85-115 | | | |
| Calcium, total | 2.12 | 0.1 | mg/L | 2.20 | | 96.5 | 85-115 | | | |
| Zinc, total | 0.182 | 0.020 | mg/L | 0.200 | | 91.0 | 85-115 | | | |
| **Matrix Spike (1HL0071-MS1)** | **Source: 1HK1970-01** | | Prepared: 12/02/24 15:19 Analyzed: 12/03/24 21:56 | | | | | | | |
| Cadmium, total | 0.187 | 0.005 | mg/L | 0.200 | ND | 93.6 | 70-130 | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HL0071 - EPA 200.2 Total ICP-OES (200.7) - 200.7** | | | | | | | | | | |
| **Matrix Spike (1HL0071-MS1)** | | **Source: 1HK1970-01** | Prepared: 12/02/24 15:19 Analyzed: 12/03/24 21:56 | | | | | | | |
| Calcium, total | 321 | 0.1 | mg/L | 2.20 | 316 | 212 | 70-130 | | | M6 |
| Zinc, total | 0.172 | 0.020 | mg/L | 0.200 | ND | 85.9 | 70-130 | | | |
| **Matrix Spike Dup (1HL0071-MSD1)** | | **Source: 1HK1970-01** | Prepared: 12/02/24 15:19 Analyzed: 12/03/24 22:05 | | | | | | | |
| Cadmium, total | 0.179 | 0.005 | mg/L | 0.200 | ND | 89.7 | 70-130 | 4.24 | 20 | |
| Calcium, total | 315 | 0.1 | mg/L | 2.20 | 316 | NR | 70-130 | 2.00 | 20 | M6 |
| Zinc, total | 0.167 | 0.020 | mg/L | 0.200 | ND | 83.6 | 70-130 | 2.79 | 20 | |
| **Post Spike (1HL0071-PS1)** | | **Source: 1HK1970-01** | Prepared: 12/02/24 15:19 Analyzed: 12/03/24 22:15 | | | | | | | |
| Cadmium, total | 0.786 | | mg/L | 0.800 | 0.000783 | 98.1 | 85-115 | | | |
| Calcium, total | 336 | | mg/L | 8.80 | 316 | 226 | 85-115 | | | M6 |
| Zinc, total | 0.743 | | mg/L | 0.800 | 0.00398 | 92.3 | 85-115 | | | |
| **Batch 1IA0549 - EPA 3005A Total Recoverable Metals - EPA 6020A** | | | | | | | | | | |
| **Blank (1IA0549-BLK1)** | | | Prepared: 01/13/25 15:26 Analyzed: 01/15/25 18:38 | | | | | | | |
| Cadmium, total | <0.0008 | 0.0008 | mg/L | | | | | | | |
| **LCS (1IA0549-BS1)** | | | Prepared: 01/13/25 15:26 Analyzed: 01/15/25 18:45 | | | | | | | |
| Cadmium, total | 0.0956 | 0.0008 | mg/L | 0.100 | | 95.6 | 80-120 | | | |
| **Matrix Spike (1IA0549-MS1)** | | **Source: 1IA0501-01** | Prepared: 01/13/25 15:26 Analyzed: 01/15/25 19:09 | | | | | | | |
| Cadmium, total | 0.0929 | 0.0008 | mg/L | 0.100 | ND | 92.9 | 75-125 | | | |
| **Matrix Spike Dup (1IA0549-MSD1)** | | **Source: 1IA0501-01** | Prepared: 01/13/25 15:26 Analyzed: 01/15/25 19:15 | | | | | | | |
| Cadmium, total | 0.0945 | 0.0008 | mg/L | 0.100 | ND | 94.5 | 75-125 | 1.72 | 20 | |
| **Post Spike (1IA0549-PS1)** | | **Source: 1IA0501-01** | Prepared: 01/13/25 15:26 Analyzed: 01/16/25 10:39 | | | | | | | |
| Cadmium, total | 0.0690 | | mg/L | 0.0800 | 0.00008 | 86.1 | 80-120 | | | |

### Definitions

**M1:** Matrix spike recovery is above acceptance limits.
**M6:** Matrix spike recovery is outside of acceptance limits. The analyte concentration is greater than 4X the spiking level.
**R1:** Duplicate RPD is outside acceptance criteria.
**RL:** Reporting Limit
**RPD:** Relative Percent Difference

### Cooler Receipt Log

**Cooler ID:** Default Cooler Temp: 0.6°C

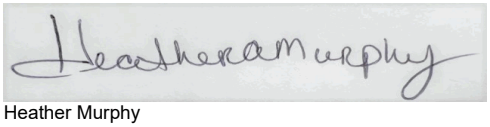
### Cooler Inspection Checklist

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

**Report Comments**

*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
01/20/25 16:59

# CHAIN OF

**Keystone LABORATORIES, INC.**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Phone: 641-792-8451
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1HL0001

HLW Engineering
PM: Heather Murphy

PAGE 1 OF 1

**PRINT OR TYPE INFORMATION BELOW**

SAMPLER: JGH
SITE NAME: PAGE CO SLF
ADDRESS:
CITY/ST/ZIP:
PHONE:

**REPORT TO:**

NAME: TODD WHIPPLE
COMPANY NAME: HLW ENGINEERING
ADDRESS: PO BOX 314
CITY/ST/ZIP: STORY CITY, IA 50248
PHONE: 515-733-4144
FAX: 515-733-4146

**BILL TO:**

NAME: BRIAN WARD
COMPANY NAME: PAGE CO SLF
ADDRESS: 2032 - N AVENUE
CITY/ST/ZIP: CLARINDA, IA 51632
PHONE:

Keystone Quote No: (If Applicable)

| CLIENT SAMPLE NUMBER | DATE | TIME | SAMPLE LOCATION | NO. OF CONTAINERS | MATRIX | GRAB/COMPOSITE | ANALYSES REQUIRED: APP I, METALS | APP I, VOC'S | CADMIUM, TOT. | ZINC, TOT. | | | | | LAB USE ONLY: LABORATORY SAMPLE NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW 44 | 11/25/24 | 10:54 | | 7 | WATER | G | X | X | | | | | | | 01 |
| GWD-1 | 11/25/24 | 11:33 | | 7 | WATER | G | X | X | | | | | | | 02 |
| MW 14 | 11/25/24 | 11:45 | | 1 | WATER | G | | | X | | | | | | 03 |
| MW 19 | 11/25/24 | 12:02 | | 7 | WATER | G | 8 | X | | | | | | | 04 |
| GW 4 | 11/25/24 | 12:37 | | 1 | WATER | G | | | | X | | | | | 05 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

LABORATORY WORK ORDER NO.: 1HL0001

SAMPLE TEMPERATURE UPON RECEIPT: 0.6 °C

SAMPLE CONDITION/COMMENTS:

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: (Signature) | Date 11/26/24 Time | Received by: (Signature) | Date Time | Turn-Around: ☐ Standard ☐ Rush ____ Contact Lab Prior to Submission | |
| Relinquished by: (Signature) | Date Time | Received for Lab by: (Signature) | Date 11-27-24 Time 9:48 | Remarks: | |

Original - Lab Copy • Yellow - Sampler Copy

FORM: CCR 7-97

# Appendix D

# Summary of Field Turbidity Measurements

## Page County Sanitary Landfill

Field Turbidity Over Time

**No-Purge Sampling**

| Well | 3/21/17 | 10/13/17 | 1/12/18 | 3/9/18 | 9/6/18 | 12/18/18 | 3/7/19 | 9/26/19 | 12/17/19 | 4/2/20 | 9/17/20 | 12/3/20 | 3/25/21 | 9/16/21 | 3/16/22 | 9/1/22 | 11/29/22 | 3/24/23 | 9/7/23 | 3/18/24 | 8/1/24 | 9/25/24 | 11/25/24 | Max | Min | Ave | Std Dev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | NTU | | | | |
| **1D** | 0.4 | 1.31 | | 1.16 | 0.82 | | 6.61 | 1.23 | | 0.78 | 0.62 | | 2.62 | 3.64 | 1.4 | 3.51 | | 1.15 | 1.89 | 4.21 | | 2.37 | | **6.61** | **0.40** | **2.11** | **1.67** |
| **3** | 0.98 | 1.72 | 2.18 | 0.87 | 0.79 | 1.44 | 12.91 | 1.83 | | 1.84 | 0.5 | | 0.66 | 17.65 | 10 | 0.74 | | 9.84 | 2.34 | 6.4 | | 1.67 | | **17.65** | **0.50** | **4.13** | **5.07** |
| **7** | 1.19 | 7.02 | | 2.04 | 0.96 | | 2.28 | 24.1 | 3.39 | 3.15 | 4.85 | 6.98 | 4.22 | 9.2 | 1.79 | 22.6 | | 4.39 | 14.4 | 3.13 | | 17.88 | | **24.10** | **0.96** | **7.42** | **7.34** |
| **10** | 0.68 | 8.12 | | 3.75 | 16.99 | | 1.46 | 0.77 | | 4.19 | 3.79 | | 9.68 | 1.27 | 9.06 | 3.16 | | 1.17 | 2.86 | 7.01 | | 2.73 | | **16.99** | **0.68** | **4.79** | **4.39** |
| **13** | 0.88 | 5.3 | 0.9 | 0.97 | 0.84 | | 0.92 | 3.04 | | 1.00 | 1.75 | | 0.84 | 1.69 | 1.24 | 2.13 | | 2.33 | 2.52 | 1.33 | | 2.46 | | **5.30** | **0.84** | **1.77** | **1.15** |
| **14** | 0.39 | 2.08 | | 1.77 | 3.24 | 0.95 | 3.98 | 5.6 | | 1.03 | 0.8 | | 35.6 | 1.45 | 2.21 | 3.23 | 7.92 | 2.4 | 2.27 | 2.11 | | 4.24 | 1.09 | **35.60** | **0.39** | **4.33** | **7.79** |
| **16** | 10.09 | 24.9 | 2.62 | 10.9 | 1.73 | | | 8.21 | | 11.2 | 24.7 | | 16.6 | 15.31 | 47.5 | 24.4 | | 10.5 | 5.51 | 10.6 | | 10.14 | | **47.50** | **1.73** | **14.68** | **11.32** |
| **17** | 4.7 | 1.29 | | 0.68 | 0.4 | | 3.33 | 2.94 | | 1.04 | 0.68 | | 1.34 | 1.39 | 1.26 | 0.73 | | 1.88 | 1.59 | 6 | | 2.41 | | **6.00** | **0.40** | **1.98** | **1.56** |
| **18** | 0.48 | 36.3 | | 0.93 | 1.92 | | 2.8 | 15.8 | | 3.41 | 9.18 | | 8.26 | 0.92 | 2.57 | 0.81 | | 3.65 | 2.76 | 4.1 | | 2.28 | | **36.30** | **0.48** | **6.01** | **9.01** |
| **19R** | | | | | | | | | | | | | | | | | | | | | | | 0.79 | **0.79** | **0.79** | **0.79** | **#DIV/0!** |
| **20** | 2.2 | 11.1 | | 3.13 | 0.77 | | 2.61 | 1.03 | | 1.23 | 1.14 | | 7.86 | 2.56 | 22.3 | 5.7 | | 6.71 | 5.71 | 13.3 | | 2.88 | | **22.30** | **0.77** | **5.64** | **5.78** |
| **44** | | | | | | | | | | | | | | | | | | | 2.31 | 4.26 | | | 2.53 | **4.26** | **2.31** | **3.03** | **1.07** |
| **53** | | | | | | | | | | | | | | | | | | | | | 4.29 | 2.08 | | **4.29** | **2.08** | **3.19** | **1.56** |
| **GWD-1** | 3.39 | 1.29 | | 1.22 | 9.31 | | 0.83 | 7.63 | | 0.78 | 1.86 | | 7.22 | | 1.35 | 3.54 | | 2.24 | 31.4 | 6.34 | | | 15.3 | **31.40** | **0.78** | **6.25** | **8.07** |
| **GWD-3** | | | | | | | | | | | | | | | | | | | | | 2.13 | 2.03 | | **2.13** | **2.03** | **2.08** | **0.07** |
| **GWD-4** | | | | | | | | | | | | | | | | | | | | | 1.07 | 2.38 | 1.83 | **2.38** | **1.07** | **1.76** | **0.66** |
| **Max** | **10.09** | **36.30** | **2.62** | **10.9** | **16.99** | **1.44** | **12.91** | **24.1** | **3.39** | **11.2** | **24.7** | **6.98** | **35.6** | **17.65** | **47.5** | **24.40** | **7.92** | **10.50** | **31.40** | **42.10** | **4.29** | **17.88** | **15.30** | | | | |
| **Min** | **0.39** | **1.29** | **0.9** | **0.68** | **0.4** | **0.95** | **0.62** | **0.77** | **3.39** | **0.78** | **0.5** | **6.98** | **0.66** | **0.92** | **1.14** | **0.73** | **7.92** | **0.86** | **1.39** | **1.33** | **4.29** | **1.67** | **0.79** | | | | |
| **Median** | **1.02** | **5.30** | **2.18** | **1.22** | **1.14** | **1.195** | **2.445** | **3.04** | **3.39** | **1.04** | **1.75** | **6.98** | **5.26** | **1.98** | **2.21** | **3.16** | **7.92** | **2.40** | **2.52** | **6.00** | **4.29** | **2.46** | **1.81** | | | | |
| **Average** | **2.63** | **8.68** | **1.9** | **2.991538** | **3.093077** | **1.195** | **3.253333** | **6.335385** | **3.39** | **2.41** | **4.364615** | **6.98** | **7.767692** | **4.89** | **8.140769** | **5.65** | **7.92** | **4.34** | **5.92** | **8.53** | **4.29** | **4.65** | **4.93** | | | | |

# Appendix E

## Summary of Prediction Limit Exceedances
## 2018 - Present

| **Spring 2018** | | **Fall 2018** | |
|---|---|---|---|
| MW-3* | Selenium | MW-3* | Selenium |
| | | | |
| MW-7* | None | MW-7* | None |
| | | | |
| MW-10* | Arsenic | MW-10* | Arsenic |
| | | | Barium |
| | | | Zinc |
| | | | Acetone |
| | | | Benzene |
| | | | Bis(2-ethylhexyl)phthalate |
| | | | |
| MW-16* | 1,1-dichloroethane | MW-16* | Barium |
| | 1,4-dichlorobenzene | | 1,4-dichlorobenzene |
| | Chlorobenzene | | Benzene |
| | Dichlorodifluoromethane | | Chlorobenzene |
| | | | |
| MW-18** | Arsenic | MW-18** | Arsenic |
| | | | Barium |
| | | | Zinc |
| | | | |
| MW-19* | 1,1-dichloroethane | MW-19* | 1,1-dichloroethane |
| | cis-1,2-dichloroethene | | Acetone |
| | | | cis-1,2-dichloroethene |
| | | | Vinyl Chloride |
| | | | |
| MW-20** | Arsenic | MW-20** | Arsenic |
| | Barium | | Barium |
| | Benzene | | Zinc |
| | Chloroethane | | Benzene |
| | | | Chlorobenzene |
| | | | Chloroethane |
| | | | |

*** = Assessment Monitoring Well**
**** = Corrective Action Monitoring Well**
***** = Field Sampling Error**

| **Spring 2019** | | **Fall 2019** | |
|---|---|---|---|
| MW-3* | Selenium | MW-3* | Selenium |
| | | | |
| MW-7* | None | MW-7* | Arsenic |
| | | | |
| MW-10* | None | MW-10* | Arsenic |
| | | | |
| MW-16* | 1,1-dichloroethane | MW-16* | Arsenic |
| | 1,4-dichlorobenzene | | Barium |
| | Benzene | | 1,1-dichloroethane |
| | Chlorobenzene | | Chlorobenzene |
| | cis-1,2-dichloroethene | | |
| | Dichlorodifluoromethane | | |
| | Vinyl Chloride | | |
| | | | |
| MW-18** | Arsenic | MW-18** | Arsenic |
| | Barium | | Barium |
| | | | |
| MW-19* | None | MW-19* | Acetone |
| | | | |
| MW-20** | Arsenic | MW-20** | Arsenic |
| | Barium | | Barium |
| | Benzene | | Zinc |
| | Chloroethane | | Benzene |
| | | | Chloroethane |
| | | | |

*** = Assessment Monitoring Well**
**** = Corrective Action Monitoring Well**
***** = Field Sampling Error**

| **Spring 2020** | | **Fall 2020** | |
|---|---|---|---|
| MW-3* | None | MW-3* | Selenium |
| | | | |
| MW-7* | None | MW-7* | Arsenic |
| | | | |
| MW-10* | Arsenic | MW-10* | None |
| | Barium | | |
| | Bis(2ethylhexyl)phthalate | | |
| | | | |
| MW-16* | Arsenic | MW-16* | Arsenic |
| | Barium | | Barium |
| | Benzene | | 1,4-dichlorobenzene |
| | Chlorobenzene | | Chlorobenzene |
| | | | |
| MW-18** | Arsenic | MW-18** | Arsenic |
| | Barium | | |
| | | | |
| MW-19* | Arsenic | MW-19* | 1,1-dichloroethane |
| | | | Acetone |
| | | | cis-1,2-dichloroethene |
| | | | Vinyl Chloride |
| | | | |
| MW-20** | Arsenic | MW-20** | Arsenic |
| | Barium | | Barium |
| | Benzene | | Chlorobenzene |
| | Chlorobenzene | | Chloroethane |
| | Chloroethane | | |
| | | | |

*** = Assessment Monitoring Well**
**** = Corrective Action Monitoring Well**
***** = Field Sampling Error**

| **Spring 2021** | | **Fall 2021** | |
|---|---|---|---|
| MW-3* | None | MW-3* | Bis(2ethylhexyl)phthalate |
| | | | |
| MW-7* | 1,1-dichloropropene | MW-7* | Benzene |
| | 2,4,5-T | | |
| | | | |
| MW-10* | Arsenic | MW-10* | None |
| | Barium | | |
| | Acetone | | |
| | | | |
| MW-16* | Arsenic | MW-16* | Arsenic |
| | Barium | | Barium |
| | 1,1-dichloroethane | | 1,4-dichlorobenzene |
| | 1,4-dichlorobenzene | | Benzene |
| | Benzene | | Chlorobenzene |
| | Chlorobenzene | | |
| | cis-1,2-dichloroethene | | |
| | | | |
| MW-18** | Arsenic | MW-18** | Arsenic |
| | | | |
| MW-19* | Arsenic | MW-19* | 1,1-dichloroethane |
| | 1,1-dichloroethane | | cis-1,2-dichloroethene |
| | cis-1,2-dichloroethene | | Vinyl Chloride |
| | Vinyl Chloride | | |
| | | | |
| MW-20** | Arsenic | MW-20** | Arsenic |
| | Barium | | Barium |
| | Benzene | | Benzene |
| | Chlorobenzene | | Bis(2ethylhexyl)phthalate |
| | Chloroethane | | Chlorobenzene |
| | | | Chloroethane |
| | | | |

*** = Assessment Monitoring Well**
**** = Corrective Action Monitoring Well**
***** = Field Sampling Error**

| **Spring 2022** | | **Fall 2022** | |
|---|---|---|---|
| MW-3* | Copper | MW-3* | Selenium |
| | | | |
| MW-7* | None | MW-7* | Arsenic |
| | | | Bis(2ethylhexyl)phthalate |
| | | | |
| MW-10* | Many Metals *** | MW-10* | None |
| | | | |
| MW-16* | Arsenic | MW-16* | Chlorobenzene |
| | Barium | | |
| | 1,1-dichloroethane | | |
| | 1,2-dichloropropane | | |
| | 1,4-dichlorobenzene | | |
| | Benzene | | |
| | Chlorobenzene | | |
| | cis-1,2-dichloroethene | | |
| | | | |
| MW-18** | Arsenic | MW-18** | Arsenic |
| | | | |
| MW-19* | 1,1-dichloroethane | MW-19* | 1,1-dichloroethane |
| | Benzene | | Benzene |
| | Chloroethane | | Chloroethane |
| | cis-1,2-dichloroethene | | cis-1,2-dichloroethene |
| | Vinyl Chloride | | Vinyl Chloride |
| | | | |
| MW-20** | Arsenic | MW-20** | Arsenic |
| | Barium | | Barium |
| | Acetone | | Benzene |
| | Benzene | | Chlorobenzene |
| | Bis(2ethylhexyl)phthalate | | Chloroethane |
| | Chlorobenzene | | |
| | Chloroethane | | |
| | | | |
| | | | |

*** = Assessment Monitoring Well**
**** = Corrective Action Monitoring Well**
***** = Field Sampling Error**

| **Spring 2023** | | **Fall 2023** | |
|---|---|---|---|
| MW-1d | Benzene | MW-1d | Benzene |
| | Chloroethane | | Chloroethane |
| | | | |
| MW-3* | Selenium | MW-3* | None |
| | | | |
| MW-7* | None | MW-7* | Arsenic |
| | | | |
| MW-16* | Chlorobenzene | MW-16* | None |
| | | | |
| MW-18** | Arsenic | MW-18** | Arsenic |
| | Barium | | |
| | | | |
| MW-19* | 1,1-dichloroethane | MW-19* | 1,1-dichloroethane |
| | cis-1,2-dichloroethene | | cis-1,2-dichloroethene |
| | Vinyl Chloride | | Vinyl Chloride |
| | | | |
| MW-20** | Arsenic | MW-20** | Arsenic |
| | Barium | | Barium |
| | Benzene | | Benzene |
| | | | Chlorobenzene |
| | | | Chloroethane |
| | | | |

| **Spring 2024** | | **Fall 2024** | |
|---|---|---|---|
| MW-1d* | Barium | MW-1d* | None |
| | Benzene | | |
| | Chlorobenzene | | |
| | Chloroethane | | |
| | | | |
| MW-7* | None | MW-7* | Arsenic |
| | | | |
| MW-16* | Arsenic | MW-16* | Arsenic |
| | 1,1-dichloroethane | | Chlorobenzene |
| | 1,4-dichlorobenzene | | |
| | Benzene | | |
| | Chlorobenzene | | |
| | | | |
| MW-18** | Arsenic | MW-18** | Arsenic |
| | | | |
| MW-19* | 1,1-dichloroethane | MW-19R* | 1,1-dichloroethane |
| | cis-1,2-dichloroethene | | cis-1,2-dichloroethene |
| | | | |
| MW-20** | Arsenic | MW-20** | Arsenic |
| | Barium | | Barium |
| | Benzene | | Benzene |
| | Chlorobenzene | | Chlorobenzene |
| | Chloroethane | | |
| | | | |

*** = Assessment Monitoring Well**

**** = Corrective Action Monitoring Well**

# Appendix F

# Summary of Assessment Monitoring Results

The full Appendix II sample events are highlighted in green.

| Date | bis(2ethylhexyl)phthalate (ug/L) | | | | |
|---|---|---|---|---|---|
| | MW-3 | MW-7 | MW-10 | MW-16 | MW-19 |
| 9/7/14 | NT | NT | NT | NT | NT |
| 4/28/15 | NT | NT | NT | NT | NT |
| 10/6/15 | NT | NT | NT | NT | NT |
| 4/23/16 | NT | NT | NT | NT | NT |
| 9/1/16 | <8 | NT | NT | <8 | NT |
| 3/21/17 | NT | NT | NT | NT | <8 |
| 10/13/17 | NT | NT | NT | NT | NT |
| 3/9/18 | NT | NT | NT | NT | NT |
| 9/6/18 | NT | NT | **8.0** | NT | NT |
| 3/7/19 | NT | NT | <6 | NT | NT |
| 9/26/19 | NT | NT | <6 | NT | NT |
| 4/2/20 | NT | NT | **14.0** | NT | NT |
| 9/17/20 | NT | NT | <6 | NT | NT |
| 3/25/21 | NT | <6 | <6 | NT | NT |
| 9/16/21 | **8.0** | NT | <6 | <6 | NT |
| 3/16/22 | <6 | NT | NT | NT | <6 |
| 9/1/22 | NT | **9.0** | NT | NT | NT |
| 3/24/23 | NT | <6 | NT | NT | NT |
| 9/7/2023 | NT | NT | NT | NT | NT |
| 3/18/2024 | NT | NT | NT | NT | NT |
| 9/25/2024 | NT | NT | Dry | NT | NT |

| Date | bis(2ethylhexyl)phthalate (ug/L) | | |
|---|---|---|---|
| | MW-18 | MW-20 | MW-1d |
| 9/7/14 | NT | NT | NT |
| 4/28/15 | NT | NT | NT |
| 10/6/15 | NT | NT | NT |
| 4/23/16 | NT | NT | NT |
| 9/1/16 | <8 | <8 | NT |
| 3/21/17 | NT | NT | NT |
| 10/13/17 | NT | NT | NT |
| 3/9/18 | NT | NT | NT |
| 9/6/18 | NT | NT | NT |
| 3/7/19 | NT | NT | NT |
| 9/26/19 | NT | NT | NT |
| 4/2/20 | NT | NT | NT |
| 9/17/20 | NT | NT | NT |
| 3/25/21 | NT | NT | NT |
| 9/16/21 | <6 | **8.0** | NT |
| 3/16/22 | NT | **7.0** | NT |
| 9/1/22 | NT | <6 | NT |
| 3/24/23 | NT | NT | NT |
| 9/7/2023 | NT | NT | <6 |
| 3/18/2024 | NT | NT | NT |
| 9/25/2024 | NT | NT | NT |

The full Appendix II sample events are highlighted in green.

| Date | Dichlorodifluoromethane (ug/L) | | | | |
|---|---|---|---|---|---|
| | MW-3 | MW-7 | MW-10 | MW-16 | MW-19 |
| 9/7/14 | <1 | NT | NT | **3.6** | <1 |
| 4/28/15 | NT | NT | NT | **2.6** | NT |
| 10/6/15 | NT | NT | NT | **2.9** | NT |
| 4/23/16 | NT | NT | NT | **3.2** | NT |
| 9/1/16 | <1 | NT | NT | **3.6** | NT |
| 3/21/17 | NT | NT | NT | **2.2** | **1.0** |
| 10/13/17 | NT | NT | NT | **1.6** | NT |
| 3/9/18 | NT | NT | NT | **3.0** | <1 |
| 9/6/18 | NT | NT | <1 | <1 | <1 |
| 3/7/19 | NT | NT | NT | **4.6** | NT |
| 9/26/19 | NT | NT | <1 | <1 | NT |
| 4/2/20 | NT | NT | NT | <1 | NT |
| 9/17/20 | NT | NT | NT | <1 | NT |
| 3/25/21 | NT | <1 | NT | NT | NT |
| 9/16/21 | <1 | NT | NT | <1 | NT |
| 3/16/22 | NT | NT | NT | NT | <1 |
| 9/1/22 | NT | <1 | NT | NT | NT |
| 3/24/2023 | NT | NT | NT | NT | NT |
| 9/7/2023 | NT | NT | NT | NT | NT |
| 3/18/2024 | NT | NT | NT | NT | NT |
| 9/25/2024 | NT | NT | <1 | NT | NT |

| Date | Dichlorodifluoromethane (ug/L) | | |
|---|---|---|---|
| | MW-18 | MW-20 | MW-1d |
| 9/7/14 | NT | NT | NT |
| 4/28/15 | NT | NT | NT |
| 10/6/15 | NT | NT | NT |
| 4/23/16 | NT | NT | NT |
| 9/1/16 | <1 | <1 | NT |
| 3/21/17 | NT | NT | NT |
| 10/13/17 | NT | NT | NT |
| 3/9/18 | NT | NT | NT |
| 9/6/18 | NT | NT | NT |
| 3/7/19 | NT | NT | NT |
| 9/26/19 | NT | NT | NT |
| 4/2/20 | NT | NT | NT |
| 9/17/20 | NT | NT | NT |
| 3/25/21 | NT | NT | NT |
| 9/16/21 | <1 | <1 | NT |
| 3/16/22 | NT | NT | NT |
| 9/1/22 | NT | NT | NT |
| 3/24/2023 | NT | NT | NT |
| 9/7/2023 | NT | NT | <1 |
| 3/18/2024 | NT | NT | NT |
| 9/25/2024 | NT | NT | NT |

# Appendix G

# Expansion Area Cell and Infrastructure Layout

SHOP/MAINTENANCE BUILDING
RIM =1125.0
FL OUT (W) =1104.6
GP-1
EQUIPMENT STORAGE BUILDING
HHM BUILDING
GP-2
MW-20
MW-7
MW-12
MW-19
WELL 1
RIM = 1125.7
INV = 1114.9
WASTE BOUNDARY
WELL 3
RIM = 1132.78
INV = 1121.08
MW-14
GWD-1
MW-13
MW-16
EXISTING LEACHATE MANHOLE
EXISTING FORCE MAIN
POWER POLE
RECYCLING BUILDING
MH W-4-2
MH W-4-1
MH W-4
MH W-3-1
PZ-29
N TANK ACCESS
RIM = 1154.1
INV = 1137.5
S TANK ACCESS
RIM = 1157.4
INV = 1143.6
SUMP MH
RIM = 1155.3
INV = 1142.4
PZ-33
GWPZ-1
LPZ-41
PZ-39
PZ-1
MW-18
PROPE
PHASE 4/5 2015
LINER (2003)
LINER (2006)
ABUTMENT (2008)
GP-5A
MW-3
GP-5
OFFICE/SCALEHOUSE
MW-10
PZ-25
MH W-3
MH W-2
10" ADS PIPE
FL = 1088.26
60" CMP PIPE
FL = 1088.26
12" PVC PIPE
FL = 1088.73
SIRWA WITNESS POST
MH W-1
PHASE W1
1% (TYPICAL)
PZ-36
GAS RELIEF VENTS
PERFORATED GAS COLLECTION PIPE
PZ-21
PHASE 3 2013
PHASE 1 (2010)
PHASE 2 (2012)
EDGE OF SUBTITLE D COMPOSITE LINER
CONTROL MH
SIRWA RURAL WATER
LAGOON
6 IN ADS
FL = 1137.0
6" HDPE CLEANOUT
HICKENBOTTOM INT
GP-3
PZ-24
MW-40
MW-41
MW-1
PZ-4
COUNTY ROAD
W
N
SCALE
0 100 200

CONTOURS IN WEST DEVELOPMENT AREA FROM FIELD SURVEY COMPLETED ON NOVEMBER 1, 2022

NOTES:
1. FOR MANHOLE DESIGN INFORMATION SEE FIGURE 5.

EXISTING WASTE BOUNDARY
EXISTING COMPOSITE LINED BOUNDARY
PROPERTY BOUNDARY
PROPOSED WASTE BOUNDARY
PROPOSED TOP OF LINER
PROPOSED LEACHATE PIPING

FIGURE: 1

| REVISION | NO. | DATE |
|---|---|---|
| DRAWN JGH | PROJECT NO. 6047-22A | DATE 01/23/23 |

# OVERALL SITE PLAN
# WEST EXPANSION AREA

PAGE COUNTY SANITARY LANDFILL
PAGE COUNTY, IOWA

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

HLW Engineering Group

# Appendix H

# Leachate Collection System Performance Evaluation Report

Appendix H.1- Volumes Hauled to Treatment

# Page County Landfill
# Leachate Hauling

| 2024 | Destination | Gallons | Gallons | Gallons |
|---|---|---|---|---|
| January | Coin | 48,000 | | |
| February | Coin | 66,000 | | |
| March | Coin | 24,000 | | |
| | Clarinda | | 30,000 | |
| April | Coin | 36,000 | | |
| | Clarinda | | 30,000 | |
| May | Coin | 48,000 | | |
| | Clarinda | | 60,000 | |
| June | Coin | 42,000 | | |
| | Clarinda | | 24,000 | |
| July | Coin | 30,000 | | |
| | Clarinda | | 36,000 | |
| August | Coin | 12,000 | | |
| | Clarinda | | 36,000 | |
| September | *No leachate hauled* | | | |
| October | *No leachate hauled* | | | |
| November | Coin | 48,000 | | |
| | Clarinda | | 30,000 | |
| December | Coin | 90,000 | | |
| | Clarinda | | 90,000 | |
| *Subtotal Coin* | | *444,000* | | |
| *Subtotal Clarinda* | | | *336,000* | |
| *Subtotal Shenandoah* | | | | *0* |
| **TOTAL GALLONS** | | **780,000** | | |

Appendix H.2-Treatment Agreements
Coin, Shenandoah, Clarinda

August 1, 2022

AMIE JOHNSON
CITY OF COIN
506 DEPOT STREET
PO BOX 324
COIN, IA 51636-0324

RE: NPDES Final Permit #7335001

Dear Ms. Johnson:

Enclosed is the final NPDES permit that authorizes the discharge of wastewater from the City of Coin's wastewater treatment facility. This final permit is the same as the draft permit sent on June 23, 2022. The issuance date of this permit is September 1, 2022; please become familiar with all limits and requirements in the enclosed final permit.

The facility will be required to use new discharge monitoring report (DMR) forms once a final permit is issued. Paper and electronic DMR forms are available from your regional Field Office. The facility is strongly encouraged to use the electronic reporting form. Please contact Dan Olson at 712-243-1934 (Field Office 4) or dan.olson@dnr.iowa.gov for more information or to request forms.

If you have any questions, please contact me at 515-452-6235 or at ryan.olive@dnr.iowa.gov.

Sincerely,

Ryan Olive
NPDES Section

Enclosures

# IOWA DEPARTMENT OF NATURAL RESOURCES

## National Pollutant Discharge Elimination System (NPDES) Permit

**OWNER NAME & ADDRESS**

CITY OF COIN
PO BOX 324
COIN, IA 51636

**FACILITY NAME & ADDRESS**

COIN CITY OF STP
H AVE & HACKBERRY AVE
COIN, IA 51636

Section 5, T67N, R38W
Page County

**IOWA NPDES PERMIT NUMBER:** 7335001
**DATE OF ISSUANCE:** 09/01/2022
**DATE OF EXPIRATION:** 08/31/2027

**YOU ARE REQUIRED TO FILE FOR RENEWAL OF THIS PERMIT BY:** 03/04/2027
**EPA NUMBER:** IA0062332

This permit is issued pursuant to the authority of section 402(b) of the Clean Water Act (33 U.S.C. 1342(b)), Iowa Code section 455B.174, and rule 567-64.3, Iowa Administrative Code. You are authorized to operate the disposal system and to discharge the pollutants specified in this permit in accordance with the effluent limitations, monitoring requirements and other terms set forth in this permit.

Pursuant to rule 561-7.4, Iowa Administrative Code, you may appeal any condition of this permit by filing a written notice of appeal and request for administrative hearing with the director of the department within 60 days of permit issuance.

Any existing, unexpired Iowa operation permit or Iowa NPDES permit previously issued by the department for the facility identified above is revoked by the issuance of this permit. This provision does not apply to any authorization to discharge under the terms and conditions of a general permit issued by the department or to any permit issued exclusively for the discharge of stormwater.

FOR THE DEPARTMENT OF NATURAL RESOURCES

By _____

Ryan Olive
NPDES Section, Environmental Services Division

**Facility Name:** COIN CITY OF STP

**Permit Number:** 7335001

**Outfall No.:** 001 CONTROLLED DISCHARGE FROM A THREE CELL WASTE STABILIZATION LAGOON.

**Receiving Stream:** UNNAMED CREEK

**Route of Flow:** UNNAMED CREEK TO TARKIO RIVER

Class A1 waters are primary contact recreational use waters in which recreational or other uses may result in prolonged and direct contact with the water, involving considerable risks of ingesting water in quantities sufficient to pose a health hazard. Such activities would include, but not be limited to, swimming, diving, water skiing, and water contact recreational canoeing.

Waters designated Class B(WW1) are those in which temperature, flow and other habitat characteristics are suitable to maintain warm water game fish populations along with a resident aquatic community that includes a variety of native nongame fish and invertebrates species. These waters generally include border rivers, large interior rivers, and the lower segments of medium-size tributary streams.

**Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited.**

**Facility Name:** COIN CITY OF STP

**Permit Number:** 7335001

**Effluent Limitations:**

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

**001 CONTROLLED DISCHARGE FROM A THREE CELL WASTE STABILIZATION LAGOON.**

| *Outfall: 001 Effective Dates: 09/01/2022 to 08/31/2027* | | | |
|---|---|---|---|
| **Parameter** | **Season** | **Limit Type** | **Limits** |
| **CBOD5** | | | **85% Removal Required** |
| | Yearly | 7 Day Average | 40 MG/L |
| | Yearly | 30 Day Average | 25 MG/L |
| **TOTAL SUSPENDED SOLIDS** | | | |
| | Yearly | 7 Day Average | 120 MG/L |
| | Yearly | 30 Day Average | 80 MG/L |
| **PH** | | | |
| | Yearly | Daily Maximum | 9.0 STD UNITS |
| | Yearly | Daily Minimum | 6.0 STD UNITS |

**Facility Name:** COIN CITY OF STP

**Permit Number:** 7335001

## Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:
(1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
(2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

**Facility Name:** COIN CITY OF STP
**Permit Number:** 7335001

| Outfall | Wastewater Parameter | Sample Frequency | Sample Type | Monitoring Location |
|---|---|---|---|---|
| The following monitoring requirements shall be in effect from 09/01/2022 to 08/31/2027 | | | | |
| 001 | BIOCHEMICAL OXYGEN DEMAND (BOD5) | 1 EVERY 3 MONTHS | 24 HOUR COMPOSITE | RAW WASTE |
| 001 | FLOW | 7/WEEK OR DAILY | 24 HOUR TOTAL | RAW WASTE |
| 001 | CBOD5 | PRIOR TO DISCHARGE | GRAB | PRE-DISCHARGE SAMPLE |
| 001 | TOTAL SUSPENDED SOLIDS | PRIOR TO DISCHARGE | GRAB | PRE-DISCHARGE SAMPLE |
| 001 | AMMONIA NITROGEN (N) | TWICE PER DRAWDOWN | GRAB | FINAL EFFLUENT |
| 001 | CBOD5 | TWICE PER DRAWDOWN | GRAB | FINAL EFFLUENT |
| 001 | E. COLI | TWICE PER DRAWDOWN | GRAB | FINAL EFFLUENT |
| 001 | FLOW | DAILY DURING DRAWDOWN | INSTANTANEOUS | FINAL EFFLUENT |
| 001 | PH | ONCE PER DRAWDOWN | GRAB | FINAL EFFLUENT |
| 001 | TOTAL SUSPENDED SOLIDS | TWICE PER DRAWDOWN | GRAB | FINAL EFFLUENT |
| 001 | CELL DEPTH | 1 TIME PER WEEK | MEASUREMENT | CELL 3 CONTENTS |
| 001 | CELL DEPTH | 1 TIME PER WEEK | MEASUREMENT | CELL 2 CONTENTS |
| 001 | CELL DEPTH | 1 TIME PER WEEK | MEASUREMENT | CELL 1 CONTENTS |

**Facility Name:** COIN CITY OF STP

**Permit Number:** 7335001

## Special Monitoring Requirements

| Outfall # | Description |
|---|---|
| 001 | **E. COLI** |

If the effluent has been disinfected using chlorine, ultraviolet light (UV), or any other process intended to disrupt the biological integrity of the E. coli, the samples shall be analyzed using the Most Probable Number method found in Standard Method 9223B (Colilert® or Colilert-18® made by IDEXX Laboratories, Inc.). If the effluent has not been disinfected the samples may be analyzed using either the MPN method above or EPA Method 1603: Escherichia coli (E. coli) in water by membrane filtration using modified membrane-thermotolerant E. coli agar (modified mTEC) or mColiBlue-24® made by the Hach Company.

**Facility Name:** COIN CITY OF STP

**Permit Number:** 7335001

**Significant Industrial User Discharges:**

**Significant Industrial User:** PAGE COUNTY SANITARY LANDFILL ASSOCIATION

**Outfall #** **Outfall Description**

**001** **SANITARY LANDFILL LEACHATE WILL BE TRUCKED TO THE TREATMENT PLANT FOR DISPOSAL.**

**Significant Industrial User Effluent Limitations**

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

| ***PAGE COUNTY SANITARY LANDFILL ASSOCIATION*** ***Outfall: 001 Effective Dates: 09/01/2022 to 08/31/2027*** | | | |
|---|---|---|---|
| **Parameter** | **Season** | **Limit Type** | **Limit Values** |
| **FLOW** | | | |
| | Yearly | 30 Day Average | 0.0175 MGD |
| | Yearly | DAILY MAXIMUM | 0.0220 MGD |
| **BIOCHEMICAL OXYGEN DEMAND (BOD5)** | | | |
| | Yearly | 30 Day Average | 25 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 45 LBS/DAY |
| **TOTAL SUSPENDED SOLIDS** | | | |
| | Yearly | 30 Day Average | 25 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 45 LBS/DAY |
| **AMMONIA NITROGEN (N)** | | | |
| | Yearly | 30 Day Average | 10 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 15 LBS/DAY |
| **PH** | | | |
| | Yearly | DAILY MAXIMUM | 9.0 STD UNITS |
| | Yearly | DAILY MINIMUM | 5.8 STD UNITS |

**Facility Name:** COIN CITY OF STP

**Permit Number:** 7335001

# Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:
(1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
(2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

**Facility Name:** COIN CITY OF STP
**Permit Number:** 7335001

| PAGE COUNTY SANITARY LANDFILL ASSOCIATION | | | | |
|---|---|---|---|---|
| **Outfall** | **Wastewater Parameter** | **Sample Frequency** | **Sample Type** | **Monitoring Location** |
| 001 | AMMONIA NITROGEN (N) | 1 EVERY 3 MONTHS | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | BIOCHEMICAL OXYGEN DEMAND (BOD5) | 1 EVERY 3 MONTHS | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | FLOW | 1 EVERY BATCH | ESTIMATED | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | PH | 1 EVERY BATCH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | SANITARY LANDFILL LEACHATE | 1 EVERY 12 MONTHS | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | TOTAL SUSPENDED SOLIDS | 1 EVERY 3 MONTHS | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |

**Facility Name:** COIN CITY OF STP
**Permit Number:** 7335001

## ADDITIONAL MONITORING REQUIREMENTS

## PAGE COUNTY SANITARY LANDFILL ASSOCIATION

The permittee shall analyze a representative sample of the landfill leachate discharge from Page County Sanitary Landfill Association at least annually for each of the pollutants listed below. In addition, the permittee shall monitor the volume of waste discharged and BOD5, TSS, pH, and Ammonia Nitrogen at the frequencies specified on page 9 of this permit.

**Pollutant**
Biochemical Oxygen Demand (BOD5)
Total Suspended Solids
Ammonia Nitrogen (NH3-N)
Oil and Grease (O&G)
pH
Chloride (as Cl)
Sulfate (as SO4)
Arsenic, Total (as As)
Chromium, Total (as Cr)
Copper, Total (as Cu)
Iron, Total (as Fe)
Lead, Total (as Pb)
Nickel, Total (as Ni)
Selenium, Total (as Se)
Zinc, Total (as Zn)
Benzoic Acid
Chlorobenzene
Ethylbenzene
*p*-Cresol
Phenol
Toluene

The permittee will indicate completion of the annual leachate monitoring by entering a “1” in the “LEACHAT” column on the Discharge Monitoring Report (DMR) spreadsheet on the day that the samples are collected. Select the No Discharge Indicator “NOT REQUIRED/MP” on the DMR spreadsheet during the months that the monitoring is not required.

Results of annual monitoring shall be submitted to the addresses below:

NPDES.mail@dnr.iowa.gov
Subject: Landfill Leachate Scan (7335001)

Iowa DNR Field Office 4
1401 Sunnyside Ln.
Atlantic, IA 50022

**Facility Name:** COIN CITY OF STP

**Permit Number:** 7335001

## Design Capacity

**Design:** 1

The design capacity for the treatment works is specified in Construction Permit Number 76-482-S, issued June 11, 1976. The treatment plant is designed to treat:

* An average dry weather (ADW) flow of 0.035 Million Gallons Per Day (MGD).
* An average wet weather (AWW-180) flow of 0.035 Million Gallons Per Day (MGD).
* A maximum wet weather (MWW) flow of 0.035 Million Gallons Per Day (MGD).
* A design 5-day biochemical oxygen demand (BOD5) load of 60 lbs/day.

Operator Certification Type/Grade: WL/IL

Wastes in such volumes or quantities as to exceed the design capacity of the treatment works or reduce the effluent quality below that specified in the operation permit of the treatment works are considered to be a waste which interferes with the operation or performance of the treatment works and are prohibited by subrule IAC 567-62.1(7).

**Facility Name:** COIN CITY OF STP

**Permit Number:** 7335001

## SEWAGE SLUDGE HANDLING AND DISPOSAL REQUIREMENTS

"Sewage sludge" is solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge does not include the grit and screenings generated during preliminary treatment.

1. The permittee shall comply with all existing Federal and State laws and regulations that apply to the use and disposal of sewage sludge and with technical standards developed pursuant to Section 405(d) of the Clean Water Act when such standards are promulgated. If an applicable numerical limit or management practice for pollutants in sewage sludge is promulgated after issuance of this permit that is more stringent than a sludge pollutant limit or management practice specified in existing Federal or State laws or regulations, this permit shall be modified, or revoked and reissued, to conform to the regulations promulgated under Section 405(d) of the Clean Water Act. The permittee shall comply with the limitation no later than the compliance deadline specified in the applicable regulations.

2. The permittee shall provide written notice to the Department of Natural Resources prior to any planned changes in sludge disposal practices.

3. Land application of sewage sludge shall be conducted in accordance with criteria established in rule IAC 567 67.1 through 67.11 (455B).

**Facility Name:** COIN CITY OF STP
**Permit Number:** 7335001

## Controlled Discharge Lagoon Operation and Sampling Procedures

### OPERATION REQUIREMENTS

Continuous discharge of wastewater from this facility is prohibited. The treatment plant must be operated using a storage/drawdown mode of operating. Wastewater must be stored for approximately 180 days after which time the water level is to be lowered to make room for the next storage period. Acceptable discharge periods are April 15th through June 15th and October 1st through December 21st. Lagoon drawdown shall occur during these periods except in emergency situations. The permittee is required to contact the local DNR Field Office and obtain prior approval if there is a need to discharge during other times of the year, when stream flows are low or if the effluent limitations specified in this permit will not be met. Lagoon drawdown at a rate greater than 10 times the 180 day AWW design flow is prohibited.

### PRE-DISCHARGE SAMPLING

The permittee is responsible for complying with the limits contained in this permit. Therefore, a grab sample of the lagoon cell contents collected at a point near the outlet structure shall be analyzed at least two weeks prior to an anticipated discharge to demonstrate that the wastewater is of such quality to meet the effluent limitations in the permit. The permittee must have the sample analyzed for 5-day carbonaceous biochemical oxygen demand (CBOD5) and total suspended solids (TSS). The results must be compared with the 30-day average effluent limits. If the results are less than the 30-day average limits, the permittee may isolate the final cell and draw down the lagoon cell. If the pre-discharge sample results exceed the 30-day average effluent limits for either CBOD5 or TSS, the permittee must contact the local DNR Field Office for guidance before beginning to discharge.

Report pre-discharge sample results in the spaces provided on the monthly operation report form.

### EFFLUENT SAMPLING

The permittee must collect and analyze a sample of the final effluent on the third day after discharge begins for all parameters for which monitoring of the final effluent is specified on the page titled MONITORING AND REPORTING REQUIREMENTS. Subsequent samples shall be taken at the specified frequencies. For final effluent samples that are required to be taken twice during drawdown, the first sample shall be taken the third day after the drawdown begins, and the second sample shall be taken between three (3) and five (5) days before the drawdown ends. Report the results on the discharge monitoring report (DMR) form in the columns provided for effluent monitoring. The results must be reported for the days the samples were collected, not for the days the sample results were received from the laboratory.

Revised: April 10, 2013

**Facility Name:** COIN CITY OF STP

**Permit Number:** 7335001

## SIGNIFICANT INDUSTRIAL USER LIMITATIONS, MONITORING AND REPORTING REQUIREMENTS

1. You must enforce the pollutant limits for each significant industrial user that are listed elsewhere in this permit. Violation of a treatment agreement limit is prohibited by subrule 567 IAC 62.1(6). Monitoring of each significant industrial user is required elsewhere in this permit.

2. Monitoring of each significant industrial user is required elsewhere in this permit. Results of the required monitoring shall be included on your discharge monitoring report, which must be submitted by the fifteenth of the following month.

3. You are required to notify the department, in writing, of any of the following:

   (a) 180 days prior to the introduction of pollutants to your facility from a significant industrial user. A significant industrial user means an industrial user of a treatment works that:
      (1) Discharges an average of 25,000 gallons per day or more of process wastewater excluding sanitary, noncontact cooling and boiler blowdown wastewater;
      (2) Contributes a process waste stream which makes up five percent or more of the average dry weather hydraulic or organic capacity of the publicly-owned treatment works:
      (3) Is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or
      (4) Is designated by the department as a significant industrial user on the basis that the contributing industry, either singly or in combination with other contributing industries, has a reasonable potential for adversely affecting the operation of or effluent quality from the publicly-owned treatment works or for violating any pretreatment standards or requirements.

   (b) 60 days prior to a proposed expansion, production increase or process modification that may result in the discharge of a new pollutant or a discharge in excess of limitations stated in the existing treatment agreement.

   (c) 10 days prior to any commitment by you to accept waste from any new significant industrial user. Your written notification must include a new or revised treatment agreement in accordance with rule 64.3(5)(455B).

4. You shall require all users of your facility to comply with Sections 204(b), 307, and 308 of the Clean Water Act.

   (a) Section 204(b) requires that all users of the treatment works constructed with funds provided under Sections 201(g) or 601 of the Act to pay their proportionate share of the costs of operation, maintenance and replacement of the treatment works.

   (b) Section 307 of the Act requires users to comply with pretreatment standards promulgated by EPA for pollutants that would cause interference with the treatment process or would pass through the treatment works.

   (c) Section 308 of the Act requires users to allow access at reasonable times to state and EPA inspectors for the purpose of sampling the discharge and reviewing and copying records.

## STANDARD CONDITIONS

1. **ADMINISTRATIVE RULES -** Rules of the Iowa Department of Natural Resources (department) that govern the operation of a facility in connection with this permit are published in Part 567 of the Iowa Administrative Code (IAC) in Chapters 60-65, 67, and 121. Reference to the term "rule" in this permit means the designated provision of Part 567 of the IAC. Reference to the term "CFR" means the Code of Federal Regulations.

2. **LIMIT DEFINITIONS -**
   (a) 7 day average means the arithmetic mean (average) of pollutant parameter values for samples collected in a period of seven consecutive days. The first 7-day period shall begin with the first day of the month. ***{567 IAC 60.2}***
   (b) 30 day average means the arithmetic mean of pollutant parameter values for samples collected in a period of 30 consecutive days. ***{567 IAC 60.2}***
   (c) Daily maximum means the total discharge by mass, volume, or concentration during a twenty-four hour period. ***{567 IAC 60.2}***

3. **MONITORING AND RECORDS OF OPERATION -**
   (a) Electronic reporting. Records of operation required by this permit shall be electronically submitted to the department within 15 days following the close of the monthly reporting period, in accordance with the monitoring requirements incorporated in this permit, unless an approval for paper submittal of records of operation has been obtained in accordance with 567 IAC 63.7(2).
   (b) Maintenance of records. You shall retain for a minimum of three years all paper and electronic records of monitoring activities and results including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records. ***{567 IAC 63.2(3)}***
   (c) Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than two years, or both. ***{40 CFR 122.41(j)(5)}***

4. **USE OF CERTIFIED LABORATORIES -** Analyses of wastewater, groundwater or sewage sludge that are required to be submitted as a result of this permit must be performed by a laboratory certified by the State of Iowa. Routine, on-site monitoring for pH, temperature, dissolved oxygen, total residual chlorine and other pollutants that must be analyzed immediately upon sample collection, physical measurements, and operational performance monitoring specified in 567 IAC 63.3(4) are excluded from this requirement. ***{567 IAC 63.1}***

5. **DUTY TO PROVIDE INFORMATION -** You must furnish to the director, within a reasonable time, any information the director may request to determine compliance with this permit or determine whether cause exists for amending, revoking and reissuing, or terminating this permit, in accordance with 567 IAC 64.3(11)"*c*". You must also furnish to the director, upon request, copies of any records required to be kept by this permit. If you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, you must promptly submit such facts or information. If you become aware that you failed to submit any relevant facts in any report to the director, including records of operation, you shall promptly submit such facts or information. ***{567 IAC 60.4(2)"a", 567 IAC 63.7(6), 40 CFR 122.41(h)}***

6. **DUTY TO REAPPLY AND PERMIT CONTINUATION -** If you wish to continue to discharge after the expiration date of this permit, you must file a complete application for reissuance at least 180 days prior to the expiration date of this permit. If a timely and sufficient application is submitted, this permit will remain in effect until the department makes a final determination on the permit application. ***{567 IAC 64.8(1), Iowa Code 17A.18}***

7. **DUTY TO COMPLY -** You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Issuance of this permit does not relieve you of the responsibility to comply with all local, state and federal laws, ordinances, regulations or other legal requirements applying to the operation of your facility. ***{567 IAC 64.7(4)"e", 40 CFR 122.41(a)}***

8. **DUTY TO MITIGATE -** You shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. ***{See 567 IAC 64.7(7)"i", 40 CFR 122.41(d)}***

9. **PROPER OPERATION AND MAINTENANCE -** All facilities and control systems shall be operated as efficiently as possible and maintained in good working order. A sufficient number of staff, adequately trained and knowledgeable in the operation of your facility, shall be retained at all times. Adequate laboratory controls and appropriate quality assurance procedures shall be provided to maintain compliance with the conditions of this permit. ***{567 IAC 64.7(7)"f", 40 CFR 122.41(e)}***

10. **SIGNATORY REQUIREMENTS -** Applications, discharge monitoring reports, or other information submitted to the department in connection with this permit must be signed and certified in accordance with 567 IAC 64.3(8).

11. **TRANSFER OF TITLE OR OWNER ADDRESS CHANGE -** If title to your facility, or any part of it, is transferred, the new owner shall be subject to this permit. You are required to notify the new owner of the requirements of this permit in writing prior to any transfer of title. The department shall be notified in writing within 30 days of the occurrence. No transfer of the authorization to discharge from the facility represented by the permit shall take place prior to notifying the department of the transfer of title. Whenever the address of the owner is changed, the department shall be notified in writing within 30 days of the address change. ***{567 IAC 64.14}***

## STANDARD CONDITIONS

12. **PERMIT MODIFICATION, SUSPENSION OR REVOCATION -** This permit may be amended, revoked and reissued, or terminated in whole or in part for cause including, but not limited to, those specified in 567 IAC 64.3(11)*"b"*. This permit may be modified due to conditions or information on which this permit is based, including any new standard the department may adopt that would change the required effluent limits. If a toxic pollutant is present in your discharge and more stringent standards for toxic pollutants are established under Section 307(a) of the Clean Water Act, this permit will be modified in accordance with the new standards. The filing of a request for a permit amendment, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. ***{567 IAC 64.3(11) and 64.7(7)"g", 40 CFR 122.62(a)(6)}***

13. **TWENTY-FOUR HOUR REPORTING -** You shall report any noncompliance that may endanger human health or the environment, including, but not limited to, violations of maximum daily limits for any toxic pollutant (listed as toxic under 307(a)(1) of the Clean Water Act) or hazardous substance (as designated in 40 CFR Part 116 pursuant to 311 of the Act). Information shall be provided orally to the appropriate regional field office of the department within 24 hours from the time you become aware of the circumstances. A written submission that includes a description of noncompliance and its cause; the period of noncompliance including exact dates and times, whether the noncompliance has been corrected or the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent a reoccurrence of the noncompliance must be provided to the appropriate field office within 5 days of the occurrence. ***{567 IAC 63.12}***

14. **OTHER NONCOMPLIANCE -** You shall report all instances of noncompliance not reported under Condition #13 at the time discharge monitoring reports are submitted. The report shall contain the information listed in Condition #13. You shall give advance notice to the appropriate regional field office of the department of any planned activity which may result in noncompliance with permit requirements. Notice is required only when previous notice has not been given to any other section of the department. ***{567 IAC 63.7(5) and 63.14}***

15. **INSPECTION OF PREMISES, RECORDS, EQUIPMENT, METHODS AND DISCHARGES -** You are required to permit authorized personnel to:
    (a) Enter upon the premises where a regulated facility or activity is located or conducted or where records are kept under conditions of this permit;
    (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
    (c) Inspect, at reasonable times, any facilities, equipment, practices or operations regulated or required under this permit; and
    (d) Sample or monitor, at reasonable times, to assure compliance or as otherwise authorized by the Clean Water Act.
    ***{40 CFR 122.41(i)}***

16. **NOTICE OF CHANGED CONDITIONS -** You are required to notify the director of any changes in existing conditions or information on which this permit is based, including, but not limited to, the following:
    (a) If your facility is a publicly owned treatment works (POTW) or otherwise accepts waste for treatment from an indirect discharger or industrial contributor, you must notify the director if there is any substantial change in the volume or character of pollutants being introduced to the POTW by an indirect discharger or industrial contributor. See 567 IAC 64.3(5) for further requirements. ***{40 CFR 122.42(b)}***
    (b) If your facility has a manufacturing, commercial, mining, or silviculture discharge, you must notify the director as soon as you know or have reason to believe that any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in this permit. ***{See 40 CFR 122.42(a)}***
    ***(c)*** You must notify the director if you have begun or will begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant which was not reported in the permit application. *{**40 CFR 122.21(g)(9)}***

17. **PLANNED CHANGES -** You shall give notice to the appropriate regional field office of the department 30 days prior to any planned physical alterations or additions to the permitted facility. Facility expansions, production increases, or process modifications which result in new or increased discharges of pollutants must be reported by submission of a new permit application. If any modification of, addition to, or construction of a disposal system is to be made, you must first obtain a written construction permit from this department. In addition, no construction activity that will result in disturbance of one acre or more shall be initiated without first obtaining coverage under NPDES General Permit No. 2.
    Notice is required only when:
    (a) Notice has not been given to any other section of the department:
    (b) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as defined in 567 IAC 60.2;
    (c) The alteration or addition results in a significant change in sludge use or disposal practices; or
    (d) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in the permit.
    ***{567 IAC 63.13, 567 IAC 64.2 and 64.7(7)"a"}***

18. **FAILURE TO SUBMIT FEES -** This permit may be revoked, in whole or in part, if the appropriate permit fees are not submitted within thirty (30) days of the date of notification that such fees are due. ***{567 IAC 64.16(1)}***

## STANDARD CONDITIONS

**19. BYPASSES -** "Bypass" means the diversion of waste streams from any portion of a treatment facility or collection system. A bypass does not include internal operational waste stream diversions that are part of the design of the treatment facility, maintenance diversions where redundancy is provided, diversions of wastewater from one point in a collection system to another point in a collection system, or wastewater backups into buildings that are caused in the building lateral or private sewer line.

(a) Prohibitions.

i. Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited.

ii. The department may not assess a civil penalty against a permittee for a bypass if the permittee has complied with all of the following:

(1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required by paragraph (d) of this section.

(c) The Director may approve an anticipated bypass after considering its adverse effects if the Director determines that it will meet the three conditions listed above and a request for bypass has been submitted to the appropriate regional field office of the department at least ten days prior to the expect event, in accordance with 567 IAC 63.6(2).

(d) Bypasses shall be reported in accordance with 567 IAC 63.6.

***{567 IAC 63.6}***

**20. UPSETS -** "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(a) *Effect of an upset.* An upset constitutes an affirmative defense to the assessment of a civil penalty for noncompliance with technology-based permit effluent limitations if the requirements of paragraph (c) of this condition are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(b) *Conditions necessary for demonstration of an upset.* A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed operating logs or other relevant evidence, that;

i. An upset occurred and that the permittee can identify the cause(s) of the upset;

ii. The permitted facility was at the time being properly operated;

iii. The permittee submitted notice of the upset to the department in accordance with 567 IAC 63.6(3); and

iv. The permittee complied with any remedial measures required by the department in accordance with 567 IAC 63.6(6)"*b*".

(c) *Burden of Proof.* In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

***{567 IAC 63.6}***

**21. NEED TO HALT OR REDUCE ACTIVITY -** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. ***{567 IAC 64.7(7)"j", 40 CFR 122.41(c)}***

**22. PROPERTY RIGHTS -** This permit does not convey any property rights of any sort or any exclusive privilege. ***{567 IAC 64.4(3)"b", 40 CFR 122.41(g)}***

**23. EFFECT OF A PERMIT -** Compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301, 302, 306, 307, 318, 403 and 405(a)-(b) of the Clean Water Act, and equivalent limitations and standards set out in 567 IAC Chapters 61 and 62. ***{567 IAC 64.4(3)"a"}***

**24. SEVERABILITY -** The provisions of this permit are severable and if any provision or application of any provision to any circumstance is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding.

TURKLE - CLARK
ENVIRONMENTAL
CONSULTING, L.C.

September 7, 2016

Eric Wiklund
IDNR Water Quality - NPDES Permits
5th Floor Wallace Bldg
502 E. 9th St
Des Moines, IA 50319

RE: Treatment Agreement between City of Clarinda and Page County Landfill
NPDES permit # 7329001

Dear Eric:

Attached is a treatment agreement form approved by the City of Clarinda and the Page County Sanitary Landfill Association for accepting and treating the leachate from the landfill. The limits are similar to those authorized with the City of Shenandoah. This additional treatment location provides alternatives for the landfill to utilize should one system be unable to accept the leachate.

If you should have questions or need additional information regarding this agreement, please feel free to contact me directly.

Sincerely,

Cynthia Turkle

Cindy Turkle,
Senior Environmental Professional

Cc: Page County Landfill
Gary McClarnon, City of Clarinda
Al Bertelsen, Field Office #4
Geoffrey Spain, Land Quality

Enclosure

12662 McKinley Trail Indianola, Iowa 50125 (515) 961-7864 FAX (515) 961-2981

# IOWA DEPARTMENT OF NATURAL RESOURCES
## TREATMENT AGREEMENT FORM

**DNR USE ONLY**
NPDES NO.
IND. CONT. AGREEMENT NO.
REPLACES AGREEMENT NO.

**NOTICE**

A properly executed Treatment Agreement must be submitted by the industrial user not less than one hundred eighty (180) days before the new significant industrial user proposes to discharge into a wastewater disposal system. Any proposed expansion, production increase, or process modification that may result in any change to a previous Treatment Agreement requires execution of a new Treatment Agreement.

| SIGNIFICANT INDUSTRIAL USER | | SYSTEM RECEIVING WASTE | |
|---|---|---|---|
| NAME<br>Page County Sanitary Landfill | | NAME<br>Clarinda Wastewater Treatment | |
| MAILING ADDRESS<br>2032 N Ave, Clarinda, IA 51632-959 | | MAILING ADDRESS<br>200 S. 15th St., Clarinda, IA 51632 | |
| AUTHORIZED REPRESENTATIVE<br>Myron Magwitz | PHONE NO.<br>712-542-5018 | AUTHORIZED REPRESENTATIVE<br>Gary McClarnon | PHONE NO.<br>712-542-2136 |

**CERTIFICATION OF INDUSTRIAL USER**

I am the duly authorized representative for the significant industrial user identified above and state that the proposed discharge to the system receiving waste identified above shall not exceed the quantities listed on page two of this form after:

EFFECTIVE DATE
September 1, 2016

I further assure that notice of any anticipated increase in pollutants contributed shall be given to the owner of the system identified above sufficiently in advance of such increase to allow this contributor to submit a new treatment agreement to the Department of Natural Resources no later than sixty days in advance of the increase or change.

| TYPED OR PRINTED NAME | TITLE | SIGNATURE | DATE |
|---|---|---|---|
| Myron Magwitz | Manager | Myron Magwitz | 9-1-16 |

**CERTIFICATION OF SYSTEM RECEIVING WASTE**

I am the duly authorized representative for the facility owner named above and state that the owner agrees to accept the discharge described on page two from the contractor identified above, and accepts responsibility for providing treatment of the volume and quantities described on the reverse in accordance with the provisions of Chapter 455B, Code of Iowa, and the rules of the Department of Natural Resources. This agreement is conditioned on the industrial contributor complying with all applicable standards and requirements of the Department of Natural Resources and the United State Environmental Protection Agency. This agreement is entered for the purpose of identifying pollutants contributed and limiting the quantity contributed, and shall not otherwise be construed to affect local ordinances, sewer service agreements or fee systems entered into between the parties.

This agreement may be modified or terminated by the owner of the disposal system if additional pollutants or additional quantities or volumes of pollutants are contributed other than identified on the reverse, or because of any condition that requires either a temporary or permanent reduction or elimination of the accepted contribution.

| TYPED OR PRINTED NAME | TITLE | SIGNATURE | DATE |
|---|---|---|---|
| Gary McClarnon | City Manager | Gary McClarnon | 9-2-2016 |

TREATMENT AGREEMENT FORM

**1. PROCESS DESCRIPTION**

| SPECIFIC MANUFACTURING PROCESS | SIC CODES |
|---|---|
| Municipal solid waste landfill leachate | 4953 |

| CONSUMPTION | | PRODUCTION | |
|---|---|---|---|
| PRINCIPAL RAW MATERIAL | AMOUNT CONSUMED PER DAY | PRINCIPAL PRODUCTS | AMOUNT PRODUCED PER DAY |
| Residential and commercial waste | 50 TPD | Landfill leachate | varies |

| 2. HOURLY MAXIMUM FLOW CONTRIBUTION | 3. DAYS OF OPERATION PER WEEK | 4. HOURS OF OPERATION DURING PEAK DAY OF OPERATION | 5. RANGE OF pH LEVEL IN CONTRIBUTION | |
|---|---|---|---|---|
| | | | MINIMUM | MAXIMUM |
| NA | 7 | Potentially 24/day | 5.8 | 8.5 |

**6. DESCRIPTION OF PRETREATMENT PROVIDED**

None

**7. DESCRIPTION OF ANY BATCH OR PERIODIC DISCHARGES**

Leachate is temporarily stored in two tanks or the on-site lagoon. When volumes require drawdown, the leachate is transported to the POTW for treatment.

**8. COMPATIBLE WASTE IN CONTRIBUTION**

| WASTEWATER PARAMETER | AVERAGE | MAXIMUM | WASTEWATER PARAMETER | AVERAGE | MAXIMUM |
|---|---|---|---|---|---|
| Flow (MGD) | 0.022000 | 0.03000 | Ammonia Nitrogen (lbs/day) | 12.843 | 35.03 |
| BOD5 (lbs/day) | 9.174 | 25.02 | Oil and Grease (mg/l) | | |
| Total Suspended Solids (lbs/day) | 18.35 | 50.04 | | | |
| Total Kjeldahl Nitrogen (lbs/day) | | | | | |

**9. INCOMPATIBLE WASTE IN CONTRIBUTION**

| WASTEWATER PARAMETER | AVERAGE | | MAXIMUM | |
|---|---|---|---|---|
| | mg/l | lbs/day | mg/l | lbs/day |
| none | | | | |
| | | | | |
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January 24, 2022

ROGER MCQUEEN - MAYOR
SHENANDOAH CITY
PO BOX 338
500 W CLARINDA AVE
SHENANDOAH, IOWA 51601

RE: NPDES Final Permit #3659001

To whom it may concern,

Enclosed is the final NPDES permit that authorizes the discharge of wastewater from the Shenandoah City wastewater treatment facility. This final permit is the same as the draft permit sent on November 30, 2021. The issuance date of this permit is February 1, 2022; please become familiar with all limits and requirements in the enclosed final permit.

The facility will be required to use new discharge monitoring report (DMR) forms. Paper and electronic DMR forms are available from your regional Field Office. The facility is strongly encouraged to use the electronic reporting form. Please contact Dan Olson at 712-243-1934 (Field Office 4) or dan.olson@dnr.iowa.gov for more information or to request forms.

If you have any questions, please contact me at 515-725-8418 or at derek.dusenbery@dnr.iowa.gov.

Sincerely,

Derek Dusenbery

Digitally signed by Derek Dusenbery
Date: 2022.01.24 13:28:27 -06'00'

Derek Dusenbery
Environmental Specialist
NPDES Permit Writer

**IOWA DEPARTMENT OF NATURAL RESOURCES**

**National Pollutant Discharge Elimination System (NPDES) Permit**

**OWNER NAME & ADDRESS**

CITY OF SHENANDOAH
CITY HALL, P.O. BOX 338
SHENANDOAH, IA 51601

**FACILITY NAME & ADDRESS**

SHENANDOAH CITY OF STP
WEST OF TOWN OFF 190TH STREET AND
WEST SHERIDAN AVENUE
SHENANDOAH, IA 51601

Section 24, T69N, R40W
Fremont County

**IOWA NPDES PERMIT NUMBER:** 3659001
**DATE OF ISSUANCE:** 02/01/2022
**DATE OF EXPIRATION:** 01/31/2027

**YOU ARE REQUIRED TO FILE FOR RENEWAL OF THIS PERMIT BY:** 08/04/2026
**EPA NUMBER:** IA0032328

This permit is issued pursuant to the authority of section 402(b) of the Clean Water Act (33 U.S.C. 1342(b)), Iowa Code section 455B.174, and rule 567-64.3, Iowa Administrative Code. You are authorized to operate the disposal system and to discharge the pollutants specified in this permit in accordance with the effluent limitations, monitoring requirements and other terms set forth in this permit.

You may appeal any condition of this permit by filing a written notice of appeal and request for administrative hearing with the director of the department within 30 days of permit issuance.

Any existing, unexpired Iowa operation permit or Iowa NPDES permit previously issued by the department for the facility identified above is revoked by the issuance of this permit. This provision does not apply to any authorization to discharge under the terms and conditions of a general permit issued by the department or to any permit issued exclusively for the discharge of stormwater.

FOR THE DEPARTMENT OF NATURAL RESOURCES

By Derek Dusenbery Digitally signed by Derek Dusenbery Date: 2022.01.24 12:24:00 -06'00'

Derek Dusenbery
NPDES Section, Environmental Services Division

**Facility Name:** SHENANDOAH CITY OF STP
**Permit Number:** 3659001

**Outfall No.:** 001 DISCHARGE FROM A TRICKLING FILTER WASTEWATER TREATMENT FACILITY.
**Receiving Stream:** UNNAMED CREEK
**Route of Flow:** UNNAMED CREEK TO EAST NISHNABOTNA RIVER

Class A2 waters are secondary contact recreational use waters in which recreational or other uses may result in contact with the water that is either incidental or accidental. During the recreational use, the probability of ingesting appreciable quantities of water is minimal. Class A2 uses include fishing, commercial and recreational boating, any limited contact incidental to shoreline activities and activities in which users do not swim or float in the water body while on a boating activity.

Waters designated Class B(WW2) are those in which flow or other physical characteristics are capable of supporting a resident aquatic community that includes a variety of native nongame fish and invertebrate species. The flow and other physical characteristics limit the maintenance of warm water game fish populations. These waters generally consist of small perennially flowing streams.

**Outfall No.:** 002 DISCHARGE TO GOLF COURSE IRRIGATION SYSTEM.
**Receiving Stream:** GOLF COURSE
**Route of Flow:** GOLF COURSE

Class A1 waters are primary contact recreational use waters in which recreational or other uses may result in prolonged and direct contact with the water, involving considerable risks of ingesting water in quantities sufficient to pose a health hazard. Such activities would include, but not be limited to, swimming, diving, water skiing, and water contact recreational canoeing.

**Outfall No.:** 003 BYPASS OF ETHANOL PLANT RETURN FLOW
**Receiving Stream:** UNNAMED CREEK
**Route of Flow:** UNNAMED CREEK TO EAST NISHNABOTNA RIVER

Class A2 waters are secondary contact recreational use waters in which recreational or other uses may result in contact with the water that is either incidental or accidental. During the recreational use, the probability of ingesting appreciable quantities of water is minimal. Class A2 uses include fishing, commercial and recreational boating, any limited contact incidental to shoreline activities and activities in which users do not swim or float in the water body while on a boating activity.

Waters designated Class B(WW2) are those in which flow or other physical characteristics are capable of supporting a resident aquatic community that includes a variety of native nongame fish and invertebrate species. The flow and other physical characteristics limit the maintenance of warm water game fish populations. These waters generally consist of small perennially flowing streams.

**Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited.**

**Facility Name:** SHENANDOAH CITY OF STP
**Permit Number:** 3659001

**Effluent Limitations:**

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

**001 DISCHARGE FROM A TRICKLING FILTER WASTEWATER TREATMENT FACILITY.**

| ***Outfall: 001 Effective Dates: 02/01/2022 to 01/31/2027*** | | | |
|---|---|---|---|
| **Parameter** | **Season** | **Limit Type** | **Limits** |
| **CBOD5** | | | **85% Removal Required** |
| | Yearly | 7 Day Average | 40 MG/L 627 LBS/DAY |
| | Yearly | 30 Day Average | 25 MG/L 392 LBS/DAY |
| **TOTAL SUSPENDED SOLIDS** | | | **85% Removal Required** |
| | Yearly | 7 Day Average | 45 MG/L 706 LBS/DAY |
| | Yearly | 30 Day Average | 30 MG/L 470 LBS/DAY |
| **ACUTE TOXICITY, CERIODAPHNIA** | | | |
| | Yearly | Daily Maximum | 1 NO TOXICITY |
| **ACUTE TOXICITY, PIMEPHALES** | | | |
| | Yearly | Daily Maximum | 1 NO TOXICITY |
| **DISSOLVED OXYGEN** | | | |
| | Yearly | Daily Minimum | 5.0 MG/L |
| **PH** | | | |
| | Yearly | Daily Maximum | 9.0 STD UNITS |
| | Yearly | Daily Minimum | 6.5 STD UNITS |

**Facility Name:** SHENANDOAH CITY OF STP
**Permit Number:** 3659001

| *Outfall: 001 Effective Dates: 02/01/2022 to 04/30/2026* | | | | |
|---|---|---|---|---|
| **Parameter** | **Season** | **Limit Type** | **Limits** | |
| **AMMONIA NITROGEN (N)** | | | | |
| | JAN | 30 Day Average | 19 MG/L | 258 LBS/DAY |
| | JAN | Daily Maximum | 19 MG/L | 276 LBS/DAY |
| | FEB | 30 Day Average | 19 MG/L | 266 LBS/DAY |
| | FEB | Daily Maximum | 19 MG/L | 266 LBS/DAY |
| | MAR | 30 Day Average | 18 MG/L | 225 LBS/DAY |
| | MAR | Daily Maximum | 18 MG/L | 263 LBS/DAY |
| | APR | 30 Day Average | 10 MG/L | 98 LBS/DAY |
| | APR | Daily Maximum | 19 MG/L | 273 LBS/DAY |
| | MAY | 30 Day Average | 9.0 MG/L | 85 LBS/DAY |
| | MAY | Daily Maximum | 18 MG/L | 265 LBS/DAY |
| | JUN | 30 Day Average | 6.1 MG/L | 59 LBS/DAY |
| | JUN | Daily Maximum | 17 MG/L | 253 LBS/DAY |
| | JUL | 30 Day Average | 7.0 MG/L | 64 LBS/DAY |
| | JUL | Daily Maximum | 21 MG/L | 306 LBS/DAY |
| | AUG | 30 Day Average | 6.4 MG/L | 59 LBS/DAY |
| | AUG | Daily Maximum | 19 MG/L | 281 LBS/DAY |
| | SEP | 30 Day Average | 6.9 MG/L | 66 LBS/DAY |
| | SEP | Daily Maximum | 20 MG/L | 289 LBS/DAY |
| | OCT | 30 Day Average | 15 MG/L | 135 LBS/DAY |
| | OCT | Daily Maximum | 19 MG/L | 276 LBS/DAY |
| | NOV | 30 Day Average | 17 MG/L | 166 LBS/DAY |
| | NOV | Daily Maximum | 17 MG/L | 257 LBS/DAY |
| | DEC | 30 Day Average | 19 MG/L | 195 LBS/DAY |
| | DEC | Daily Maximum | 19 MG/L | 280 LBS/DAY |

**Facility Name:** SHENANDOAH CITY OF STP
**Permit Number:** 3659001

| *Outfall: 001 Effective Dates: 05/01/2026 to 01/31/2027* | | | | |
|---|---|---|---|---|
| **Parameter** | **Season** | **Limit Type** | **Limits** | |
| **AMMONIA NITROGEN (N)** | | | | |
| | JAN | 30 Day Average | 3.4 MG/L | 53.4 LBS/DAY |
| | JAN | Daily Maximum | 15.2 MG/L | 238.1 LBS/DAY |
| | FEB | 30 Day Average | 4.0 MG/L | 62.0 LBS/DAY |
| | FEB | Daily Maximum | 14.2 MG/L | 222.6 LBS/DAY |
| | MAR | 30 Day Average | 3.4 MG/L | 53.4 LBS/DAY |
| | MAR | Daily Maximum | 14.7 MG/L | 230.3 LBS/DAY |
| | APR | 30 Day Average | 1.5 MG/L | 23.9 LBS/DAY |
| | APR | Daily Maximum | 15.7 MG/L | 246.2 LBS/DAY |
| | MAY | 30 Day Average | 1.7 MG/L | 27.3 LBS/DAY |
| | MAY | Daily Maximum | 15.2 MG/L | 238.1 LBS/DAY |
| | JUN | 30 Day Average | 1.3 MG/L | 20.5 LBS/DAY |
| | JUN | Daily Maximum | 14.4 MG/L | 226.4 LBS/DAY |
| | JUL | 30 Day Average | 1.0 MG/L | 15.8 LBS/DAY |
| | JUL | Daily Maximum | 14.3 MG/L | 217.9 LBS/DAY |
| | AUG | 30 Day Average | 1.0 MG/L | 15.0 LBS/DAY |
| | AUG | Daily Maximum | 13.7 MG/L | 208.5 LBS/DAY |
| | SEP | 30 Day Average | 1.1 MG/L | 16.6 LBS/DAY |
| | SEP | Daily Maximum | 16.5 MG/L | 258.6 LBS/DAY |
| | OCT | 30 Day Average | 1.6 MG/L | 24.4 LBS/DAY |
| | OCT | Daily Maximum | 15.7 MG/L | 246.2 LBS/DAY |
| | NOV | 30 Day Average | 2.3 MG/L | 36.4 LBS/DAY |
| | NOV | Daily Maximum | 14.7 MG/L | 230.3 LBS/DAY |
| | DEC | 30 Day Average | 2.5 MG/L | 38.8 LBS/DAY |
| | DEC | Daily Maximum | 16.0 MG/L | 250.3 LBS/DAY |

**Facility Name:** SHENANDOAH CITY OF STP
**Permit Number:** 3659001

| *Outfall: 001 Effective Dates: 05/01/2026 to 01/31/2027* | | | |
|---|---|---|---|
| **Parameter** | **Season** | **Limit Type** | **Limits** |
| ***E. COLI*** | | | |
| | MAR | Geometric Mean | 134 #/100 ML |
| | APR | Geometric Mean | 134 #/100 ML |
| | MAY | Geometric Mean | 134 #/100 ML |
| | JUN | Geometric Mean | 134 #/100 ML |
| | JUL | Geometric Mean | 134 #/100 ML |
| | AUG | Geometric Mean | 134 #/100 ML |
| | SEP | Geometric Mean | 134 #/100 ML |
| | OCT | Geometric Mean | 134 #/100 ML |
| | NOV | Geometric Mean | 134 #/100 ML |

| *Outfall: 001 Effective Dates: 01/01/2027 to 01/31/2027* | | | | |
|---|---|---|---|---|
| **Parameter** | **Season** | **Limit Type** | **Limits** | |
| **SELENIUM, TOTAL (AS SE)** | | | | |
| | Yearly | 30 Day Average | 0.005 MG/L | 0.0784 LBS/DAY |
| | Yearly | Daily Maximum | 0.0193 MG/L | 0.3026 LBS/DAY |
| **COPPER, TOTAL (AS CU)** | | | | |
| | Yearly | 30 Day Average | 0.01687 MG/L | 0.2645 LBS/DAY |
| | Yearly | Daily Maximum | 0.0269 MG/L | 0.4217 LBS/DAY |

## Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:

(1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
(2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

**Facility Name:** SHENANDOAH CITY OF STP
**Permit Number:** 3659001

| Outfall | Wastewater Parameter | Sample Frequency | Sample Type | Monitoring Location |
|---|---|---|---|---|
| The following monitoring requirements shall be in effect from 02/01/2022 to 01/31/2027 | | | | |
| 001 | BIOCHEMICAL OXYGEN DEMAND (BOD5) | 2 TIMES PER WEEK | 24 HOUR COMPOSITE | RAW WASTE |
| 001 | FLOW | 7/WEEK OR DAILY | 24 HOUR TOTAL | RAW WASTE |
| 001 | NITROGEN, TOTAL (AS N) | 1 TIME PER WEEK | 24 HOUR COMPOSITE | RAW WASTE |
| 001 | NITROGEN, TOTAL KJELDAHL (AS N) | 1 EVERY MONTH | 24 HOUR COMPOSITE | RAW WASTE |
| 001 | PH | 2 TIMES PER WEEK | GRAB | RAW WASTE |
| 001 | PHOSPHORUS, TOTAL (AS P) | 1 TIME PER WEEK | 24 HOUR COMPOSITE | RAW WASTE |
| 001 | TEMPERATURE | 2 TIMES PER WEEK | GRAB | RAW WASTE |
| 001 | TOTAL SUSPENDED SOLIDS | 1 TIME PER WEEK | 24 HOUR COMPOSITE | RAW WASTE |
| 001 | *E. COLI* | SEE SPECIAL MONITORING | GRAB | EFFLUENT AFTER DISINFECTION - GEO MEAN |
| 001 | ACUTE TOXICITY, CERIODAPHNIA | 1 EVERY 12 MONTHS | 24 HOUR COMPOSITE | EFFLUENT AFTER DISINFECTION |
| 001 | ACUTE TOXICITY, PIMEPHALES | 1 EVERY 12 MONTHS | 24 HOUR COMPOSITE | EFFLUENT AFTER DISINFECTION |
| 001 | AMMONIA NITROGEN (N) | 2 TIMES PER WEEK | 24 HOUR COMPOSITE | EFFLUENT AFTER DISINFECTION |
| 001 | CBOD5 | 2 TIMES PER WEEK | 24 HOUR COMPOSITE | EFFLUENT AFTER DISINFECTION |
| 001 | COPPER, TOTAL (AS CU) | 1 EVERY MONTH | 24 HOUR COMPOSITE | EFFLUENT AFTER DISINFECTION |
| 001 | DISSOLVED OXYGEN | 2 TIMES PER WEEK | GRAB | EFFLUENT AFTER DISINFECTION |
| 001 | NITROGEN, TOTAL (AS N) | 1 TIME PER WEEK | 24 HOUR COMPOSITE | EFFLUENT AFTER DISINFECTION |
| 001 | PH | 2 TIMES PER WEEK | GRAB | EFFLUENT AFTER DISINFECTION |
| 001 | PHOSPHORUS, TOTAL (AS P) | 1 TIME PER WEEK | 24 HOUR COMPOSITE | EFFLUENT AFTER DISINFECTION |
| 001 | SELENIUM, TOTAL (AS SE) | 1 EVERY MONTH | 24 HOUR COMPOSITE | EFFLUENT AFTER DISINFECTION |
| 001 | TEMPERATURE | 2 TIMES PER WEEK | GRAB | EFFLUENT AFTER DISINFECTION |
| 001 | TOTAL SUSPENDED SOLIDS | 1 TIME PER WEEK | 24 HOUR COMPOSITE | EFFLUENT AFTER DISINFECTION |
| 001 | ZINC, TOTAL (AS ZN) | 1 EVERY MONTH | 24 HOUR COMPOSITE | EFFLUENT AFTER DISINFECTION |
| 002 | FLOW | 7/WEEK OR DAILY | 24 HOUR COMPOSITE | PRIOR TO LAND APPLICATION |
| 002 | NITROGEN, TOTAL (AS N) | 1 EVERY 2 MONTHS | 24 HOUR COMPOSITE | PRIOR TO LAND APPLICATION |

**Facility Name:** SHENANDOAH CITY OF STP

**Permit Number:** 3659001

**Special Monitoring Requirements**

**Outfall Description**

001 ***E. COLI***

Except as specified in the effluent monitoring study portion of the compliance schedule in this permit, monitoring for *E. coli* is not required until the final *E. coli* limit is effective. All E.coli sample results must be reported in the Monthly Operation Report. If E.coli monitoring is not conducted during the time from the end of the effluent monitoring study to the final compliance date, the facility shall indicate on the Monthly Operation Report that monitoring is not required by using the "NOT REQ/MP" no discharge code.

The limit for *E. coli* specified in the limit pages of this permit is a geometric mean. The disinfection season is established in the Iowa Administrative Code, Subparagraph 567 IAC 61.3(3)"a"(1), and is in effect from March 15 to November 15. Any disinfection system (chlorine, UV light, etc.) shall be operated to comply with the limit during the entire disinfection season.

The facility must collect and analyze a minimum of five samples in one calendar month during each 3-month period from March 15 to November 15. The 3-month periods are March – May, June – August, and September – November. The collection of five samples in each 3-month period will result in a minimum of 15 samples being collected during a calendar year. For example, for the first 3-month period, the operator may choose April as the calendar month to collect the 5 individual *E. coli* samples to determine compliance with the limits. The operator may also choose the months of March or May as well, as long as each of the 5 samples is collected during a single calendar month. The same principle applies to the other two 3-month periods during the disinfection season. The following requirements apply to the individual samples collected in one calendar month:

Samples must be spaced over one calendar month.
No more than one sample can be collected on any one day.
There must be a minimum of two days between each sample.
No more than two samples may be collected in a period of seven consecutive days.

If the effluent has been disinfected using chlorine, ultraviolet light (UV), or any other process intended to disrupt the biological integrity of the *E. coli*, the samples shall be analyzed using the Most Probable Number method found in Standard Method 9223B (Colilert® or Colilert-18® made by IDEXX Laboratories, Inc.). If the effluent has not been disinfected the samples may be analyzed using either the MPN method above or EPA Method 1603: Escherichia coli (*E. coli*) in water by membrane filtration using modified membrane-thermotolerant *E. coli* agar (modified mTEC) or mColiBlue-24® made by the Hach Company.

The geometric mean must be calculated using all valid sample results collected during a month. The geometric mean formula is as follows: Geometric Mean = (Sample one * Sample two * Sample three * Sample four *Sample five…Sample N)^(1/N), which is the Nth root of the result of the multiplication of all of the sample results where N = the number of samples. If a sample result is a less than value, the value reported by the lab without the less than sign should be used in the geometric mean calculation.

The geometric mean can be calculated in one of the following ways:
Use a scientific calculator that can calculate the powers of numbers.
Enter the samples in Microsoft Excel and use the function "GEOMEAN" to perform the calculation.
Use the geometric mean calculator on the Iowa DNR webpage at:

http://www.iowadnr.gov/Environmental-Protection/Water-Quality/NPDES-Wastewater-Permitting/NPDES-Operator-Information/Bacteria-Sampling

**Special Monitoring Requirements - Continued**

**NITROGEN, TOTAL (AS N)**

Total nitrogen shall be determined by testing for Total Kjeldahl Nitrogen (TKN) and nitrate + nitrite nitrogen and reporting the sum of the TKN and nitrate + nitrite results (reported as N). Nitrate + nitrite can be analyzed together or separately.

**METALS**

Sample and analyze your final effluent for parameters listed below at the frequency shown on the Monitoring and Reporting Requirements pages of this permit. EPA approved test methods shall be used to test at a detection level at or below the levels listed after each parameter. If a sample result is not at a detection level which is low enough to demonstrate compliance with the limit in the permit, the facility will be considered to be non-compliant with that limit.

Copper 0.01687 mg/L
Selenium 0.0050 mg/L
Zinc 0.2156 mg/L

**FLOW (OUTFALL 002)**

Disinfected effluent shall be held in a retention pond with a detention time of at least 20 days prior to reuse as irrigation on a golf course. For this purpose, effluent may be disinfected using any common treatment technology, and either an existing pond or a pond constructed specifically for effluent retention may be used.

Also, a golf course utilizing treated final effluent shall take all of the following actions:
(1) Clearly state on all scorecards that treated final effluent is used for irrigation of the golf course and oral contact with golf balls and tees should be avoided;
(2) Post signs that warn against consumption of water at all water hazards;
(3) Color code, label, or tag all piping and sprinklers associated with the distribution or transmission of the treated final effluent to clearly warn against the consumptive use of the contents; and
(4) Restrict the access of the public to any area of the golf course where spraying is being conducted.

**GOLF COURSE**

A minimum total residual chlorine level of 0.5 mg/l must be maintained at a minimum of 15 minutes contact time of chlorine to wastewater prior to the irrigation of the golf course with treatment plant effluent.

In addition, a golf course utilizing treated final effluent shall take all of the following actions:
(1) Clearly state on all scorecards that treated final effluent is used for irrigation of the golf course and oral contact with golf balls and tees should be avoided;
(2) Post signs that warn against consumption of water at all water hazards;
(3) Color code, label, or tag all piping and sprinklers associated with the distribution or transmission of the treated final effluent to clearly warn against the consumptive use of the contents; and
(4) Restrict the access of the public to any area of the golf course where spraying is being conducted.

## ADDITIONAL OPERATING, MONITORING AND REPORTING REQUIREMENTS

In addition to the monitoring requirements specified elsewhere in this permit, you shall collect at least one grab sample of the final effluent from outfall 001 on a day when the plant is operating normally. The sample(s) you collect must be representative of the actual discharge and shall be analyzed for chloride, sulfate, and oil & grease using sufficiently sensitive methods (i.e., testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136.

For the purposes of this paragraph, an approved method is "sufficiently sensitive" when:
(1) the method reporting limit is at or below 389 mg/L for chloride and 1,514 mg/L for sulfate; or
(2) the level of the measured pollutant in the discharge is high enough that the method detects and quantifies the level of the pollutant in the discharge; or
(3) the method has the lowest reporting limit of the approved analytical methods for the measured pollutant.

The lab report(s) with the analytical result(s) shall be submitted to the email address below no later than *[Insert date of 3 months from permit issuance]*. The analytical result(s) will be evaluated and the department will reopen this permit if it is determined that there is a reasonable potential for the discharge to cause or contribute to a water quality standards violation for cadmium or lead.

npdes.mail@dnr.iowa.gov
Subject: Additional Monitoring (3659001)

**Significant Industrial User Discharges:**

**Significant Industrial User:** AMERICANA COMPANIES

| **Outfall #** | **Outfall Description** |
|---|---|
| 001 | PROCESS WASTEWATER PRIOR TO MIXING WITH ANY OTHER WASTES |

**Significant Industrial User Effluent Limitations**

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

| ***Outfall: 001 Effective Dates: 02/01/2022 to 01/31/2027*** | | | | |
|---|---|---|---|---|
| **Parameter** | **Season** | **Limit Type** | **Limit Values** | |
| **FLOW** | | | | |
| | Yearly | 30 Day Average | 0.072 MGD | |
| | Yearly | DAILY MAXIMUM | 0.072 MGD | |
| **ZINC, TOTAL (AS ZN)** | | | | |
| | Yearly | 30 Day Average | 1.48 MG/L | 0.888 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 2.61 MG/L | 1.57 LBS/DAY |
| **CADMIUM, TOTAL (AS CD)** | | | | |
| | Yearly | 30 Day Average | 0.07 MG/L | 0.42 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 0.11 MG/L | 0.07 LBS/DAY |
| **CHROMIUM, TOTAL (AS CR)** | | | | |
| | Yearly | 30 Day Average | 1.01 MG/L | 0.606 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 2.77 MG/L | 1.66 LBS/DAY |
| **CYANIDE, TOTAL (AS CN)** | | | | |
| | Yearly | 30 Day Average | 0.45 MG/L | 0.270 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 1.20 MG/L | 0.72 LBS/DAY |
| **NICKEL, TOTAL (AS NI)** | | | | |
| | Yearly | 30 Day Average | 2.38 MG/L | 1.42 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 3.90 MG/L | 2.34 LBS/DAY |

**Facility Name:** SHENANDOAH CITY OF STP
**Permit Number:** 3659001

| *Outfall: 001 Effective Dates: 02/01/2022 to 01/31/2027* | | | | |
|---|---|---|---|---|
| **Parameter** | **Season** | **Limit Type** | **Limit Values** | |
| **OIL AND GREASE** | | | | |
| | Yearly | 30 Day Average | 50 MG/L | |
| | Yearly | DAILY MAXIMUM | 100 MG/L | |
| **SILVER, TOTAL (AS AG)** | | | | |
| | Yearly | 30 Day Average | 0.24 MG/L | 0.144 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 0.43 MG/L | 0.26 LBS/DAY |
| **TOTAL TOXIC ORGANICS** | | | | |
| | Yearly | DAILY MAXIMUM | 2.13 LBS/DAY | |
| **COPPER, TOTAL (AS CU)** | | | | |
| | Yearly | 30 Day Average | 2.07 MG/L | 1.24 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 3.28 MG/L | 1.97 LBS/DAY |
| **LEAD, TOTAL (AS PB)** | | | | |
| | Yearly | 30 Day Average | 0.43 MG/L | 0.258 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 0.60 MG/L | 0.36 LBS/DAY |
| **PH** | | | | |
| | Yearly | DAILY MAXIMUM | 10 STD UNITS | |
| | Yearly | DAILY MINIMUM | 5 STD UNITS | |

## Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:

(1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
(2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

**Facility Name:** SHENANDOAH CITY OF STP
**Permit Number:** 3659001

| AMERICANA COMPANIES | | | | |
|---|---|---|---|---|
| **Outfall** | **Wastewater Parameter** | **Sample Frequency** | **Sample Type** | **Monitoring Location** |
| 001 | CADMIUM, TOTAL (AS CD) | 1 EVERY MONTH | 24 HOUR COMPOSITE | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | CHROMIUM, TOTAL (AS CR) | 1 EVERY MONTH | 24 HOUR COMPOSITE | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | COPPER, TOTAL (AS CU) | 1 EVERY MONTH | 24 HOUR COMPOSITE | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | CYANIDE, TOTAL (AS CN) | 1 EVERY MONTH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | FLOW | 7/WEEK OR DAILY | 24 HOUR TOTAL | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | LEAD, TOTAL (AS PB) | 1 EVERY MONTH | 24 HOUR COMPOSITE | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | NICKEL, TOTAL (AS NI) | 1 EVERY MONTH | 24 HOUR COMPOSITE | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | OIL AND GREASE | 1 EVERY MONTH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | PH | 1 EVERY MONTH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | SILVER, TOTAL (AS AG) | 1 EVERY MONTH | 24 HOUR COMPOSITE | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | TOTAL TOXIC ORGANICS | 1 EVERY MONTH | 24 HOUR COMPOSITE | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | ZINC, TOTAL (AS ZN) | 1 TIME PER WEEK | 24 HOUR COMPOSITE | PRIOR TO DISCHARGE TO CITY SEWER |

**AMERICANA COMPANIES Special Monitoring Requirements**

| **Outfall #** | **Description** |
|---|---|
| 001 | **TOTAL TOXIC ORGANICS**<br>In lieu of monitoring for total toxic organics (TTO), you may make the following certification statement on each monthly discharge report: "based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation or (pretreatment standard) for TTO. I certify that to the best on my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the solvent management plan submitted to the department of natural resources." |

**Significant Industrial User Discharges:**

**Significant Industrial User:** PAGE COUNTY SANITARY LANDFILL

| **Outfall #** | **Outfall Description** |
|---|---|
| 001 | Batch Discharge by Truck |

**Significant Industrial User Effluent Limitations**

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

| ***Outfall: 001 Effective Dates: 02/01/2022 to 01/31/2027*** | | | |
|---|---|---|---|
| **Parameter** | **Season** | **Limit Type** | **Limit Values** |
| **FLOW** | | | |
| | Yearly | 30 Day Average | 0.022000 MGD |
| | Yearly | DAILY MAXIMUM | 0.03000 MGD |
| **BIOCHEMICAL OXYGEN DEMAND (BOD5)** | | | |
| | Yearly | 30 Day Average | 9.174 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 25.02 LBS/DAY |
| **TOTAL SUSPENDED SOLIDS** | | | |
| | Yearly | 30 Day Average | 18.35 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 50.04 LBS/DAY |
| **AMMONIA NITROGEN (N)** | | | |
| | Yearly | 30 Day Average | 12.843 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 35.03 LBS/DAY |
| **PH** | | | |
| | Yearly | 30 Day Average | 8.5 STD UNITS |
| | Yearly | DAILY MINIMUM | 5.8 STD UNITS |

## Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:

(1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
(2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

| PAGE COUNTY SANITARY LANDFILL | | | | |
|---|---|---|---|---|
| **Outfall** | **Wastewater Parameter** | **Sample Frequency** | **Sample Type** | **Monitoring Location** |
| 001 | AMMONIA NITROGEN (N) | 1 EVERY BATCH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | BIOCHEMICAL OXYGEN DEMAND (BOD5) | 1 EVERY BATCH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | FLOW | 1 EVERY BATCH | 24 HOUR TOTAL | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | PH | 1 EVERY BATCH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | SANITARY LANDFILL LEACHATE | 1 EVERY 12 MONTHS | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | TOTAL SUSPENDED SOLIDS | 1 EVERY BATCH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |

## ADDITIONAL MONITORING REQUIREMENTS
## PAGE COUNTY SANITARY LANDFILL

The permittee shall analyze a representative sample of the landfill leachate discharge from Page County Sanitary Landfill at least annually for each of the pollutants listed below. In addition, the permittee shall monitor the volume of waste discharged and pH, Ammonia Nitrogen, BOD5, and TSS at the frequencies specified on page 18 of this permit.

**Pollutant:**

Biochemical Oxygen Demand (BOD5)
Ammonia Nitrogen (NH3-N)
Ph
Sulfate (as SO4)
Chromium, Total (as Cr)
Iron, Total (as Fe)
Nickel, Total (as Ni)
Zinc, Total (as Zn)
Chlorobenzene
p-Cresol
Toluene
Total Suspended Solids
Oil and Grease (O&G)
Chloride (as Cl)
Arsenic, Total (as As)
Copper, Total (as Cu)
Lead, Total (as Pb)
Selenium, Total (as Se)
Benzoic Acid
Ethylbenzene
Phenol

The permittee will indicate completion of the annual leachate monitoring by entering a “1” in the “LEACHAT” column on the Discharge Monitoring Report (DMR) spreadsheet on the day that the samples are collected. Select the No Discharge Indicator “NOT REQUIRED/MP” on the DMR spreadsheet during the months that the monitoring is not required.

Results of annual monitoring shall be submitted to the addresses below:

NPDES.mail@dnr.iowa.gov
Subject: Landfill Leachate Scan (3659001)

Iowa DNR Field Office 4
1401 Sunnyside Ln.
Atlantic, IA 50022

**Facility Name:** SHENANDOAH CITY OF STP
**Permit Number:** 3659001

**Significant Industrial User Discharges:**

**Significant Industrial User:** FREMONT COUNTY SANITARY LANDFILL

| **Outfall #** | **Outfall Description** |
|---|---|
| 001 | Batch Discharge by Truck |

**Significant Industrial User Effluent Limitations**

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

| ***Outfall: 001 Effective Dates: 02/01/2022 to 01/31/2027*** | | | |
|---|---|---|---|
| **Parameter** | **Season** | **Limit Type** | **Limit Values** |
| **FLOW** | | | |
| | Yearly | 30 Day Average | 0.022000 MGD |
| | Yearly | DAILY MAXIMUM | 0.030000 MGD |
| **BIOCHEMICAL OXYGEN DEMAND (BOD5)** | | | |
| | Yearly | 30 Day Average | 83.00 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 83.00 LBS/DAY |
| **TOTAL SUSPENDED SOLIDS** | | | |
| | Yearly | 30 Day Average | 25.00 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 25.00 LBS/DAY |
| **AMMONIA NITROGEN (N)** | | | |
| | Yearly | 30 Day Average | 12.843 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 35.028 LBS/DAY |
| **NITROGEN, TOTAL KJELDAHL (AS N)** | | | |
| | Yearly | 30 Day Average | 33.36 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 33.36 LBS/DAY |
| **PH** | | | |
| | Yearly | DAILY MAXIMUM | 9.5 STD UNITS |
| | Yearly | DAILY MINIMUM | 5.5 STD UNITS |

## Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:

(1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
(2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

| FREMONT COUNTY SANITARY LANDFILL | | | | |
|---|---|---|---|---|
| **Outfall** | **Wastewater Parameter** | **Sample Frequency** | **Sample Type** | **Monitoring Location** |
| 001 | AMMONIA NITROGEN (N) | 1 EVERY BATCH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | BIOCHEMICAL OXYGEN DEMAND (BOD5) | 1 EVERY BATCH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | FLOW | 1 EVERY BATCH | 24 HOUR TOTAL | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | NITROGEN, TOTAL KJELDAHL (AS N) | 1 EVERY BATCH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | PH | 1 EVERY BATCH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | SANITARY LANDFILL LEACHATE | 1 EVERY 12 MONTHS | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | TOTAL SUSPENDED SOLIDS | 1 EVERY BATCH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |

## ADDITIONAL MONITORING REQUIREMENTS
## FREMONT COUNTY SANITARY LANDFILL

The permittee shall analyze a representative sample of the landfill leachate discharge from Fremont County Sanitary Landfill at least annually for each of the pollutants listed below. In addition, the permittee shall monitor the volume of waste discharged and pH, Ammonia Nitrogen, BOD5, and TSS at the frequencies specified on page 21 of this permit.

**Pollutant:**

Biochemical Oxygen Demand (BOD5)
Ammonia Nitrogen (NH3-N)
Ph
Sulfate (as SO4)
Chromium, Total (as Cr)
Iron, Total (as Fe)
Nickel, Total (as Ni)
Zinc, Total (as Zn)
Chlorobenzene
p-Cresol
Toluene
Total Suspended Solids
Oil and Grease (O&G)
Chloride (as Cl)
Arsenic, Total (as As)
Copper, Total (as Cu)
Lead, Total (as Pb)
Selenium, Total (as Se)
Benzoic Acid
Ethylbenzene
Phenol

The permittee will indicate completion of the annual leachate monitoring by entering a “1” in the “LEACHAT” column on the Discharge Monitoring Report (DMR) spreadsheet on the day that the samples are collected. Select the No Discharge Indicator “NOT REQUIRED/MP” on the DMR spreadsheet during the months that the monitoring is not required. Results of annual monitoring shall be submitted to the addresses below:

NPDES.mail@dnr.iowa.gov
Subject: Landfill Leachate Scan (3659001)

Iowa DNR Field Office 4
1401 Sunnyside Ln.
Atlantic, IA 50022

**Facility Name:** SHENANDOAH CITY OF STP
**Permit Number:** 3659001

**Significant Industrial User Discharges:**

**Significant Industrial User:** GREEN PLAINS RENEWABLE ENERGY

| **Outfall #** | **Outfall Description** |
|---|---|
| 001 | DISCHARGE OF COOLING WATER |

**Significant Industrial User Effluent Limitations**

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

| ***Outfall: 001 Effective Dates: 02/01/2022 to 01/31/2027*** | | | |
|---|---|---|---|
| **Parameter** | **Season** | **Limit Type** | **Limit Values** |
| **FLOW** | | | |
| | Yearly | 30 Day Average | 0.230 MGD |
| | Yearly | DAILY MAXIMUM | 0.3 MGD |
| **BIOCHEMICAL OXYGEN DEMAND (BOD5)** | | | |
| | Yearly | 30 Day Average | 30 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 45 LBS/DAY |
| **TOTAL SUSPENDED SOLIDS** | | | |
| | Yearly | 30 Day Average | 35 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 45 LBS/DAY |
| **AMMONIA NITROGEN (N)** | | | |
| | Yearly | 30 Day Average | 3.0 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 10 LBS/DAY |
| **NITROGEN, TOTAL KJELDAHL (AS N)** | | | |
| | Yearly | 30 Day Average | 10 LBS/DAY |
| | Yearly | DAILY MAXIMUM | 15 LBS/DAY |
| **OIL AND GREASE** | | | |
| | Yearly | 30 Day Average | 15 MG/L |
| | Yearly | DAILY MAXIMUM | 30 MG/L |
| **PH** | | | |
| | Yearly | DAILY MAXIMUM | 8.0 STD UNITS |
| | Yearly | DAILY MINIMUM | 7.0 STD UNITS |

## Monitoring and Reporting Requirements

(a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.

(b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. All effluent samples for which a limit applies must be analyzed using sufficiently sensitive methods (i.e. testing procedures) approved under 567 IAC Chapter 63 and 40 CFR Part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter I, subchapter N or O.

For the purposes of this paragraph, an approved method is sufficiently sensitive when:

(1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or
(2) the method has the lowest ML of the approved analytical methods for the measured pollutant or pollutant parameter.

Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.

(c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums, 30-day averages and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).

(d) Records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

(e) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.

(f) Operational performance monitoring for treatment unit process control shall be conducted to ensure that the facility is properly operated in accordance with its design. The results of any operational performance monitoring need not be reported to the department, but shall be maintained in accordance with rule 567 IAC 63.2 (455B). The results of any operational performance monitoring specified in this permit shall be submitted to the department in accordance with these reporting requirements.

(g) Chapter 63 of the rules provides you with further explanation of your monitoring requirements.

| GREEN PLAINS RENEWABLE ENERGY | | | | |
|---|---|---|---|---|
| **Outfall** | **Wastewater Parameter** | **Sample Frequency** | **Sample Type** | **Monitoring Location** |
| 001 | AMMONIA NITROGEN (N) | 1 EVERY MONTH | 24 HOUR COMPOSITE | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | BIOCHEMICAL OXYGEN DEMAND (BOD5) | 1 EVERY MONTH | 24 HOUR COMPOSITE | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | FLOW | 7/WEEK OR DAILY | 24 HOUR TOTAL | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | NITROGEN, TOTAL KJELDAHL (AS N) | 1 EVERY MONTH | 24 HOUR COMPOSITE | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | OIL AND GREASE | 1 EVERY MONTH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | PH | 1 EVERY MONTH | GRAB | PRIOR TO DISCHARGE TO CITY SEWER |
| 001 | TOTAL SUSPENDED SOLIDS | 1 EVERY MONTH | 24 HOUR COMPOSITE | PRIOR TO DISCHARGE TO CITY SEWER |

**Facility Name:** SHENANDOAH CITY OF STP
**Permit Number:** 3659001

Outfall Number: 001

**Ceriodaphnia and Pimephales Toxicity Effluent Testing**

1. For facilities that have not been required to conduct toxicity testing by a previous NPDES permit, the initial annual toxicity test shall be conducted within three (3) months of permit issuance. For facilities that have been required to conduct toxicity testing by a previous NPDES permit, the initial annual toxicity test shall be conducted within twelve months (12) of the last toxicity test.

2. The test organisms that are to be used for acute toxicity testing shall be Ceriodaphnia dubia and Pimephales promelas. The acute toxicity testing procedures used to demonstrate compliance with permit limits shall be those listed in 40 CFR Part 136 and adopted by reference in rule 567 IAC 63.1(1). The method for measuring acute toxicity is specified in USEPA, October 2002, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition. USEPA, Office of Water, Washington, D.C., EPA 821-R-02-012.

3. The diluted effluent sample must contain a minimum of 100.00 % effluent and no more than 0.00 % of culture water.

4. One valid positive toxicity result will require, at a minimum, quarterly testing for effluent toxicity until three successive tests are determined not to be positive.

5. Two successive valid positive toxicity results or three positive results out of five successive valid effluent toxicity tests will require a toxicity reduction evaluation to be completed to eliminate the toxicity.

6. A non-toxic test result shall be indicated as a "1" on the monthly operation report. A toxic test result shall be indicated as a "2" on the monthly operation report. DNR Form 542-1381 shall also be submitted to the DNR field office along with the monthly operation report.

Ceriodaphnia and Pimephales Toxicity Effluent Limits

The maximum limit of "1" for the parameters Acute Toxicity, Ceriodaphnia and Acute Toxicity, Pimephales means no positive toxicity results.

Definition: "Positive toxicity result" means a statistical difference of mortality rate between the control and the diluted effluent sample. For more information, see USEPA, October 2002, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, USEPA, Office of Water, Washington, D.C., EPA 821-R-02-012.

## Design Capacity

**Design:** 1

The design capacity for the treatment works is specified in Construction Permit Number 88-41-S, issued Thursday,17 Oct 2002. The treatment plant is designed to treat:

* An average dry weather (ADW) flow of 0.8670 Million Gallons Per Day (MGD).
* An average wet weather (AWW) flow of 1.8800 Million Gallons Per Day (MGD).
* A maximum wet weather (MWW) flow of 5.4000 Million Gallons Per Day (MGD).
* A design 5-day biochemical oxygen demand (BOD5) load of 1,450 lbs/day.
* A design Total Kjeldahl Nitrogen (TKN) load of 322.00 lbs/day.

Operator Certification Type/Grade: WW/III

Wastes in such volumes or quantities as to exceed the design capacity of the treatment works or reduce the effluent quality below that specified in the operation permit of the treatment works are considered to be a waste which interferes with the operation or performance of the treatment works and are prohibited by subrule IAC 567-62.1(7).

## SEWAGE SLUDGE HANDLING AND DISPOSAL REQUIREMENTS

"Sewage sludge" is solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge does not include the grit and screenings generated during preliminary treatment.

1. The permittee shall comply with all existing Federal and State laws and regulations that apply to the use and disposal of sewage sludge and with technical standards developed pursuant to Section 405(d) of the Clean Water Act when such standards are promulgated. If an applicable numerical limit or management practice for pollutants in sewage sludge is promulgated after issuance of this permit that is more stringent than a sludge pollutant limit or management practice specified in existing Federal or State laws or regulations, this permit shall be modified, or revoked and reissued, to conform to the regulations promulgated under Section 405(d) of the Clean Water Act. The permittee shall comply with the limitation no later than the compliance deadline specified in the applicable regulations.

2. The permittee shall provide written notice to the Department of Natural Resources prior to any planned changes in sludge disposal practices.

3. Land application of sewage sludge shall be conducted in accordance with criteria established in rule IAC 567 67.1 through 67.11 (455B).

## SIGNIFICANT INDUSTRIAL USER LIMITATIONS, MONITORING AND REPORTING REQUIREMENTS

1. You must enforce the pollutant limits for each significant industrial user that are listed elsewhere in this permit. Violation of a treatment agreement limit is prohibited by subrule 567 IAC 62.1(6). Monitoring of each significant industrial user is required elsewhere in this permit.

   You are required to notify the department, in writing, of any of the following:

   (a) 180 days prior to the introduction of pollutants to your facility from a significant industrial user. A significant industrial user means an industrial user of a treatment works that:

      (1) Discharges an average of 25,000 gallons per day or more of process wastewater excluding sanitary, noncontact cooling and boiler blowdown wastewater;
      (2) Contributes a process waste stream which makes up five percent or more of the average dry weather hydraulic or organic capacity of the publicly-owned treatment works:
      (3) Is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or
      (4) Is designated by the department as a significant industrial user on the basis that the contributing industry, either singly or in combination with other contributing industries, has a reasonable potential for adversely affecting the operation of or effluent quality from the publicly-owned treatment works or for violating any pretreatment standards or requirements.

   (b) 60 days prior to a proposed expansion, production increase or process modification that may result in the discharge of a new pollutant or a discharge in excess of limitations stated in the existing treatment agreement.

   (c) 10 days prior to any commitment by you to accept waste from any new significant industrial user. Your written notification must include a new or revised treatment agreement in accordance with rule 64.3(5)(455B).

2. You shall require all users of your facility to comply with Sections 204(b), 307, and 308 of the Clean Water Act.

   (a) Section 204(b) requires that all users of the treatment works constructed with funds provided under Sections 201(g) or 601 of the Act to pay their proportionate share of the costs of operation, maintenance and replacement of the treatment works.

   (b) Section 307 of the Act requires users to comply with pretreatment standards promulgated by EPA for pollutants that would cause interference with the treatment process or would pass through the treatment works.

   (c) Section 308 of the Act requires users to allow access at reasonable times to state and EPA inspectors for the purpose of sampling the discharge and reviewing and copying records.

**Nutrient Reduction Requirements**

In support of the Iowa Nutrient Reduction Strategy you shall prepare and submit a report that evaluates the feasibility and reasonableness of reducing the amounts of nitrogen and phosphorus discharged into surface water. The report shall be submitted no later than ***11-1-2023*** and shall address the following:

- A description of the existing treatment facility with particular emphasis on its capabilities for removing nitrogen and phosphorus. The description shall include monitoring data that define the current amounts of total nitrogen and total phosphorus in both the raw wastewater and the final effluent.

- A description and evaluation of operational changes to the existing treatment facility that could be implemented to reduce the amounts of total nitrogen and total phosphorus discharged in the final effluent and the feasibility and reasonableness of each. Your evaluation must discuss the projected degree of total nitrogen and total phosphorus reduction achievable for each operational change. When evaluating feasibility you must consider what, if any, effect operational changes would have on the removal of other pollutants (e.g. $CBOD_5$, TSS). When evaluating reasonableness you shall include estimates of the additional cost, if any, to implement such changes and for a publicly-owned treatment works the impact on user rates.

- A description and evaluation of new or additional treatment technologies that would achieve significant reductions in the amounts of total nitrogen and total phosphorus discharged in the final effluent with a goal of achieving annual average concentrations of 10 mg/L total nitrogen and 1 mg/L total phosphorus for plants treating typical domestic strength sewage. For purposes of this evaluation typical domestic sewage is considered to contain approximately 25 – 35 mg/L total nitrogen and 4 - 8 mg/L total phosphorus. For plants treating wastewater with total nitrogen and/or total phosphorus concentrations greater than typical domestic strength sewage, the evaluation shall include the projected reductions in the total nitrogen and phosphorus effluent concentrations achievable with the application of feasible and reasonable treatment technology with a goal of achieving at least a 66 % reduction in nitrogen and 75% reduction in total phosphorus. For each treatment technology the report shall assess its feasibility, reasonableness, practicability, the availability of equipment, capital costs, annual operating costs, impact on user rates and any non-water quality environmental impacts (e.g. additional air pollution, increased sludge production, etc.).

- Based on the evaluations of operational changes and new or additional treatment technologies the report must select the preferred method(s) for reducing total nitrogen and total phosphorus in the final effluent, the rationale for the selected method(s) and an estimate of the effluent quality achievable.

- In addition to selecting operational changes and/or new or additional treatment technologies, the permittee may evaluate and propose to implement practices within the watershed that may achieve greater reductions in nitrogen and phosphorous than the preferred method(s) alone. Such evaluations are particularly encouraged when no feasible or reasonable operational changes or additional treatment technologies can be identified or when the schedule for installing the selected technology exceeds ten years.

- The report must include a schedule for making operational changes and/or installing new or additional treatment technologies to achieve the concentration and/or percentage removal goals listed above. Additional financial justification must be included in the report if no operational changes or treatment technologies are feasible or reasonable.

The schedule will be incorporated into the NPDES permit by amendment. Effluent discharge limits will be based on one full year of operating data after implementation of the operational changes or completion of plant modifications and a six month optimization period.

The report shall be sent to the following email:
npdes.mail@dnr.iowa.gov
Subject: Nutrient Reduction Requirement (3659001)

**Ammonia Nitrogen and *E. coli* Compliance Schedule**

The facility shall make necessary improvements to meet the new/more stringent ammonia nitrogen and *E. coli* limits according to the following schedule **unless an approved alternative schedule is submitted to the Department**:

- Submit an Alternatives Implementation Compliance Plan (AICP) by 8/1/2022. The AICP shall be in accordance with 567 IAC 64.7(5)"*g*" and shall include an updated Disadvantaged Community Analysis.
- Complete a Self-Assessment Matrix and submit a Work Record Request form to DNR's Wastewater Engineering Section by 2/1/2023. The forms and instructions are available on the DNR website at http://www.iowadnr.gov/InsideDNR/RegulatoryWater/WastewaterConstruction.aspx. Questions on the forms should be directed to either Terry Kirschenman at 515/725-8422 or Emy Liu at 515/725-8421.
- Submit a Facility Plan by 4/1/2023. The Facility Plan shall be in accordance with Chapter 11.2 of the Iowa Wastewater Facilities Design Standards adopted April 25, 1979.
- Submit progress report by 1/1/2024.
- Submit final plans and specifications by 7/1/2024.
- Award contract for construction of wastewater treatment improvements by 12/1/2024.
- Submit progress report by 9/1/2025.
- Complete construction of wastewater treatment improvements by 4/1/2026.
- Achieve compliance with the more stringent limits by 5/1/2026.

Within fourteen (14) days following all dates of compliance, the permittee shall provide written notice of compliance with the scheduled event. All written notices and progress reports shall be sent to the following address:

Iowa Department of Natural Resources
Environmental Services Division
Regional Office # 4
1401 Sunnyside Lane
Atlantic, IA 50022

**59 Month Copper and Selenium Compliance Schedule**

The facility shall meet the final limits for copper and selenium listed on the limits pages of this permit according to the following schedule:

- The facility shall submit a compliance strategy by February 1, 2023. The compliance strategy must describe the steps the facility will take to comply with the final effluent limits as soon as possible, but no later than January 1, 2027.

- The facility shall submit progress reports every 12 months until compliance with final effluent limits is achieved, with the first progress report due February 1, 2024. The progress reports shall detail completion of the steps described in the compliance strategy.

- Achieve compliance with final effluent limits by January 1, 2027.

Within fourteen (14) days following all dates of compliance, the permittee shall provide written notice of compliance with the scheduled event. All written notices and progress reports shall be sent to the following address:

Iowa Department of Natural Resources
Environmental Services Division
Regional Office # 4
1401 Sunnyside Lane
Atlantic, IA 50022

# STANDARD CONDITIONS

**1. ADMINISTRATIVE RULES**

Rules of this Department that govern the operation of your facility in connection with this permit are published in Part 567 of the Iowa Administrative Code (IAC) in Chapters 60-65, 67, and 121. Reference to the term "rule" in this permit means the designated provision of Part 567 of the IAC. Reference to the term "CFR" means the Code of Federal Regulations.

**2. DEFINITIONS**

(a) 7 day average means the sum of the total daily discharges by mass, volume, or concentration during a 7 consecutive day period, divided by the total number of days during the period that measurements were made. Four 7 consecutive day periods shall be used each month to calculate the 7-day average. The first 7-day period shall begin with the first day of the month.

(b) 30 day average means the sum of the total daily discharges by mass, volume, or concentration during a calendar month, divided by the total number of days during the month that measurements were made.

(c) Daily maximum means the total discharge by mass, volume, or concentration during a twenty-four hour period.

**3. DUTY TO PROVIDE INFORMATION**

You must furnish to the Director, within a reasonable time, any information the Director may request to determine compliance with this permit or determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, in accordance with 567 IAC 64.3(11)"*c*". You must also furnish to the Director, upon request, copies of any records required to be kept by this permit.

**4. MONITORING AND RECORDS OF OPERATION**

(a) Maintenance of records. You shall retain for a minimum of three years all paper and electronic records of monitoring activities and results including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records. ***{See 567 IAC 63.2(3)}***

(b) Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than two years, or both. ***{See 40 CFR 122.41(j)(5)}***

**5. SIGNATORY REQUIREMENTS**

Applications, reports or other information submitted to the Department in connection with this permit must be signed and certified in accordance with 567 IAC 64.3(8).

**6. OTHER INFORMATION**

Where you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, you must promptly submit such facts or information. Where you become aware that you failed to submit any relevant facts in the submission of in any report to the director, including records of operation, you shall promptly submit such facts or information.

***{See 567 IAC 60.4(2)"a" and 567 IAC 63.7}***

**7. TRANSFER OF TITLE OR OWNER ADDRESS CHANGE**

If title to your facility, or any part of it, is transferred the new owner shall be subject to this permit. You are required to notify the new owner of the requirements of this permit in writing prior to any transfer of title. The Director shall be notified in writing within 30 days of the transfer. No transfer of the authorization to discharge from the facility represented by the permit shall take place prior to notifying the department of the transfer of title. Whenever the address of the owner is changed, the department shall be notified in writing within 30 days of the address change. Electronic notification is not sufficient; all title transfers or address changes must be reported to the department by mail. ***{See 567 IAC 64.14}***

**8. PROPER OPERATION AND MAINTENANCE**

All facilities and control systems shall be operated as efficiently as possible and maintained in good working order. A sufficient number of staff, adequately trained and knowledgeable in the operation of your facility shall be retained at all times and adequate laboratory controls and appropriate quality assurance procedures shall be provided to maintain compliance with the conditions of this permit.

***{See 40 CFR 122.41(e) and 567 IAC 64.7(7)"f"}***

**9. PERMIT MODIFICATION, SUSPENSION OR REVOCATION**

(a) This permit may be modified, suspended, or revoked and reissued for cause including but not limited to those specified in 567 IAC 64.3(11).

(b) This permit may be modified due to conditions or information on which this permit is based, including any new standard the department may adopt that would change the required effluent limits. ***{See 567 IAC 64.3(11)}***

(c) If a toxic pollutant is present in your discharge and more stringent standards for toxic pollutants are established under Section 307(a) of the Clean Water Act, this permit will be modified in accordance with the new standards.

***{See 40 CFR 122.62(a)(6) and 567 IAC 64.7(7)"g"}***

The filing of a request for a permit modification, revocation or suspension, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

**10. DUTY TO REAPPLY AND PERMIT CONTINUATION**

If you wish to continue to discharge after the expiration date of this permit, you must file a complete application for reissuance at least 180 days prior to the expiration date of this permit. If a timely and sufficient application is submitted, this permit will remain in effect until the Department makes a final determination on the permit application. ***{See 567 IAC 64.8(1) and Iowa Code 17A.18}***

**11. DUTY TO COMPLY**

You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Issuance of this permit does not relieve you of the responsibility to comply with all local, state and federal laws, ordinances, regulations or other legal requirements applying to the operation of your facility. ***{See 40 CFR 122.41(a) and 567 IAC 64.7(4)"e"}***

## STANDARD CONDITIONS

**12. DUTY TO MITIGATE**

You shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. ***{See 40 CFR 122.41(d) and 567 IAC 64.7(7)"i"}***

**13. TWENTY-FOUR HOUR REPORTING**

You shall report any noncompliance that may endanger human health or the environment, including, but not limited to, violations of maximum daily limits for any toxic pollutant (listed as toxic under 307(a)(1) of the Clean Water Act) or hazardous substance (as designated in 40 CFR Part 116 pursuant to 311 of the Clean Water Act). Information shall be provided orally within 24 hours from the time you become aware of the circumstances. A written submission that includes a description of noncompliance and its cause; the period of noncompliance including exact dates and times, whether the noncompliance has been corrected or the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent a reoccurrence of the noncompliance must be provided within 5 days of the occurrence. ***{See 567 IAC 63.12}***

**14. OTHER NONCOMPLIANCE**

You shall report all instances of noncompliance not reported under Condition #13 at the time monitoring reports are submitted. You shall give advance notice to the appropriate regional field office of the department of any planned activity which may result in noncompliance with permit requirements. ***{See 567 IAC 63.14}***

**15. INSPECTION OF PREMISES, RECORDS, EQUIPMENT, METHODS AND DISCHARGES**

You are required to permit authorized personnel to:

(a) Enter upon the premises where a regulated facility or activity is located or conducted or where records are kept under conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment, practices or operations regulated or required under this permit; and

(d) Sample or monitor, at reasonable times, to assure compliance or as otherwise authorized by the Clean Water Act.

**16. FAILURE TO SUBMIT FEES**

This permit may be revoked, in whole or in part, if the appropriate permit fees are not submitted within thirty (30) days of the date of notification that such fees are due. ***{See 567 IAC 64.16(1)}***

**17. NEED TO HALT OR REDUCE ACTIVITY**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. ***{See 40 CFR 122.41(c) and 567 IAC 64.7(7)"j"}***

**18. NOTICE OF CHANGED CONDITIONS**

You are required to notify the director of any changes in existing conditions or information on which this permit is based. This includes, but is not limited to, the following:

(a) If your facility is a publicly owned treatment works (POTW) or otherwise may accept waste for treatment from an indirect discharger or industrial contributor (See 567 IAC 64.3(5) for further notice requirements).

(b) If your facility is a POTW and there is any substantial change in the volume or character of pollutants being introduced to the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit. ***{See 40 CFR 122.42(b)}***

(c) As soon as you know or have reason to believe that any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in this permit. ***{See 40 CFR 122.42(a)}***

(d) If you have begun or will begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

**19. PLANNED CHANGES**

The permittee shall give notice to the appropriate regional field office of the department 30 days prior to any planned physical alterations or additions to the permitted facility. Notice is required only when:

(a) Notice has not been given to any other section of the department. (Note: Facility expansions, production increases, or process modifications which may result in new or increased discharges of pollutants must be reported to the Director in advance. If such discharges will exceed effluent limitations, your report must include an application for a new permit. If any modification of, addition to, or construction of a disposal system is to be made, you must first obtain a written permit from this Department. In addition, no construction activity that will result in disturbance of one acre or more shall be initiated without first obtaining coverage under NPDES General Permit No. 2 for "Storm water discharge associated with construction activity.") ***{See 567 IAC 64.7(7)"a" and 64.2}***

(b) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as defined in 567 IAC 60.2;

(c) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices; or

(d) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in the permit. ***{See 567 IAC 63.13 and 63.14}***

**20. USE OF CERTIFIED LABORATORIES**

Analyses of wastewater, groundwater or sewage sludge that are required to be submitted to the department as a result of this permit must be performed by a laboratory certified by the State of Iowa. Routine, on-site monitoring for pH, temperature, dissolved oxygen, total residual chlorine and other pollutants that must be analyzed immediately upon sample collection, settleable solids, physical measurements, and operational monitoring tests specified in 567 IAC 63.3(4) are excluded from this requirement.

## STANDARD CONDITIONS

**21. BYPASSES**

(a) Definition. "Bypass" means the diversion of waste streams from any portion of a treatment facility or collection system. A bypass does not include internal operational waste stream diversions that are part of the design of the treatment facility, maintenance diversions where redundancy is provided, diversions of wastewater from one point in a collection system to another point in a collection system, or wastewater backups into buildings that are caused in the building lateral or private sewer line.

(b) Prohibitions.

i. Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited.

ii. Bypass is prohibited and the department may not assess a civil penalty against a permittee for bypass if the permittee has complied with all of the following:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(2) There were no feasible alternatives to the bypass such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required by paragraph (d) of this section.

(c) The Director may approve an anticipated bypass after considering its adverse effects if the Director determines that it will meet the three conditions listed above and a request for bypass has been submitted to the Department in accordance with 567 IAC 63.6(2).

(d) Reporting bypasses. Bypasses shall be reported in accordance with 567 IAC 63.6.

**22. UPSET PROVISION**

(a) Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An upset constitutes an affirmative defense in an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph *"c"* of this condition are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for demonstration of an upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed operating logs or other relevant evidence that;

i. An upset occurred and that the permittee can identify the cause(s) of the upset;

ii. The permitted facility was at the time being properly operated;

iii. The permittee submitted notice of the upset to the Department in accordance with 567 IAC 63.6(3); and

iv. The permittee complied with any remedial measures required in accordance with 567 IAC 63.6(6)"*b*".

(d) Burden of Proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

**23. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort or any exclusive privilege. ***{See 567 IAC 64.4(3)"b"}***

**24. EFFECT OF A PERMIT**

Compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301, 302, 306, 307, 318, 403 and 405(a)-(b) of the Clean Water Act, and equivalent limitations and standards set out in 567 IAC Chapters 61 and 62. ***{See 567 IAC 64.4(3)"a"}***

**25. SEVERABILITY**

The provisions of this permit are severable and if any provision or application of any provision to any circumstance is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding.

Appendix H.3 – Summary of Monthly Lagoon Discharge Testing
& Monthly Laboratory Reports

**PAGE COUNTY LANDFILL LEACHATE ANALYSIS RESULTS - SUMMARY**

**TABLE H1 - LABORATORY RESULTS (mg/l) [Beginning with January 2016]**

| DATE | | B.O.D. | | AMMONIA | | TOTAL SUSP. SOLIDS |
|---|---|---|---|---|---|---|
| 1/11/2016 | | 26 | | 87.6 | | 48 |
| 4/5/2016 | | 18 | | 88.5 | | 37 |
| 5/2/2016 | | 18 | | 56.0 | | 29 |
| 5/31/2016 | | 20 | | 78.7 | | 43 |
| 7/5/2016 | | 16 | | 72.2 | | 47 |
| 8/1/2016 | | 15 | | 73.7 | | 38 |
| 9/1/2016 | | 12 | | 6.7 | | 74 |
| 10/4/2016 | | 26 | | 44.8 | | 62 |
| 10/31/2016 | | 23 | | 36.1 | | 59 |
| 12/5/2016 | | 187 | | 37.2 | | 71 |
| 1/3/2017 | | 136 | | 58.6 | | 37 |
| 2/1/2017 | | 368 | | 60.1 | | 77 |
| 3/6/2017 | | 24 | | 63.3 | | 83 |
| 4/3/2017 | | 296 | | 36.0 | | 30 |
| 5/1/2017 | | 132 | | 70.7 | | 27 |
| 6/6/2017 | | 33 | | 59.9 | | 79 |
| 7/5/2017 | | 244 | | 67.4 | | 93 |
| 8/1/2017 | | 73 | | 89.7 | | 39 |
| 9/5/2017 | | 14 | | 88.2 | | 11 |
| 10/2/2017 | | 97 | | 80.9 | | 61 |
| 11/1/2017 | | 87 | | 115.0 | < | 7 |
| 12/4/2017 | | 20 | | 128.0 | | 31 |
| 1/3/2018 | | 20 | | 128.0 | | 44 |
| 2/5/2018 | | 14 | | 124.0 | | 29 |
| 3/5/2018 | | 16 | | 105.0 | | 14 |
| 4/2/2018 | | 19 | | 83.2 | | 44 |
| 5/1/2018 | | 29 | | 128.0 | | 37 |
| 6/4/2018 | | 24 | | 126.0 | | 27 |
| 7/2/2018 | | 34 | | 109.0 | | 31 |
| 8/1/2018 | | 28 | | 132.0 | | 19 |
| 9/4/2018 | | 88 | | 95.1 | | 44 |
| 10/1/2018 | | 40 | | 69.5 | | 62 |
| 11/5/2018 | | 48 | | 160.0 | | 131 |
| 12/3/2018 | | 29 | | 117.0 | | 67 |
| 1/2/2019 | | 323 | | 172.0 | | 76 |
| 2/4/2019 | | 70 | | 165.0 | | 52 |
| 3/4/2019 | | 38 | | 164.0 | | 78 |
| 4/2/2019 | | 465 | | 215.0 | | 83 |
| 5/1/2019 | | 116 | | 106.0 | | 31 |
| 6/3/2019 | | 50 | | 138.0 | | 141 |
| 7/1/2019 | | 43 | | 196.0 | | 107 |
| 8/6/2019 | | 30 | | 223.0 | | 67 |
| 9/3/2019 | | 11 | < | 0.10 | | 29 |
| 10/3/2019 | | 19 | | 81.3 | | 44 |
| 10/16/2019 | | 6 | | 1.2 | | 10 |
| 11/4/2019 | < | 5 | | 2.4 | | 6 |
| 12/9/2019 | | 8 | | 3.2 | | 8 |

**PAGE COUNTY LANDFILL LEACHATE ANALYSIS RESULTS - SUMMARY**

**TABLE H1 (continued) - LABORATORY RESULTS (mg/l) [Beginning with January 2016]**

| DATE | | B.O.D. | | AMMONIA | | TOTAL SUSP. SOLIDS |
|---|---|---|---|---|---|---|
| 1/6/2020 | | 6 | | 2.3 | | 4 |
| 2/3/2020 | | 32 | | 161.0 | | 45 |
| 3/2/2020 | | 15 | | 84.4 | | 36 |
| 4/1/2020 | | 17 | | 101.0 | < | 10 |
| 5/4/2020 | | 10 | | 61.6 | | 15 |
| 6/1/2020 | | 9 | | 57.8 | | 12 |
| 7/6/2020 | | 17 | | 118.0 | | 28 |
| 8/4/2020 | | 22 | | 34.7 | | 25 |
| 9/1/2020 | | 31 | | 168.0 | | 59 |
| 10/5/2020 | | 30 | | 171.0 | | 40 |
| 11/2/2020 | | 28 | | 188.0 | | 50 |
| 12/1/2020 | | 31 | | 174.0 | | 56 |
| 1/4/2021 | | 29 | | 177.0 | | 38 |
| 2/1/2021 | | 25 | | 139.0 | | 46 |
| 3/2/2021 | | 18 | | 136.0 | | 33 |
| 3/25/2021 | | 13 | | 10.8 | | 16 |
| 4/5/2021 | | 14 | | 101.0 | | 68 |
| 5/3/2021 | | 19 | | 125.0 | | 30 |
| 6/1/2021 | | 16 | | 116.0 | | 45 |
| 7/6/2021 | | 24 | | 102.0 | | 500 |
| 8/2/2021 | | 31 | | 114.0 | | 56 |
| 9/1/2021 | | 22 | | 88.5 | | 47 |
| 10/5/2021 | | 34 | | 151.0 | | 74 |
| 11/1/2021 | | 32 | | 0.46 | | 39 |
| 12/2/2021 | | 41 | | 1.3 | | 17 |
| 1/3/2022 | | 21 | | 167.0 | | 30 |
| 2/1/2022 | | 28 | | 188.0 | | 40 |
| 3/1/2022 | | 32 | | 155.0 | | 34 |
| 3/16/2022 | | 34 | | 1.1 | | 62 |
| 4/4/2022 | | 79 | | 113.0 | | 71 |
| 5/2/2022 | | 19 | | 110.0 | | 38 |
| 6/1/2022 | | 23 | | 1.0 | | 92 |
| 7/5/2022 | | 19 | | 69.3 | | 42 |
| 8/2/2022 | | 10 | | 69.4 | | 88 |
| 9/6/2022 | | 18 | | 112.0 | | 25 |
| 10/5/2022 | | 20 | | 108.0 | | 32 |
| 11/1/2022 | | 18 | | 86.8 | | 36 |
| 12/5/2022 | | 20 | | 93.7 | | 23 |

**PAGE COUNTY LANDFILL LEACHATE ANALYSIS RESULTS - SUMMARY**

**TABLE H1 (continued) - LABORATORY RESULTS (mg/l) [Beginning with January 2016]**

| DATE | | B.O.D. | | AMMONIA | | TOTAL SUSP. SOLIDS |
|---|---|---|---|---|---|---|
| 1/4/2023 | | 21 | | 98.8 | | 20 |
| 2/1/2023 | | 22 | | 115.0 | | 35 |
| 3/1/2023 | | 26 | | 102.0 | | 49 |
| 4/4/2023 | | 20 | | 117.0 | | 40 |
| 5/1/2023 | | 19 | | 109.0 | | 57 |
| 6/5/2023 | | 20 | | 141.0 | | 36 |
| 7/5/2023 | | 23 | | 122.0 | | 42 |
| 8/1/2023 | | 24 | | 167.0 | | 35 |
| 9/5/2023 | | 24 | | 172.0 | | 24 |
| 10/4/2023 | | 25 | | 218.0 | | 25 |
| 11/1/2023 | | 26 | | 182.0 | | 22 |
| 12/5/2023 | | 26 | | 204.0 | | 23 |
| 2/5/2024 | | 31 | | 139.0 | | 43 |
| 3/4/2024 | | 22 | | 237.0 | | 34 |
| 3/18/2024 | | 6 | | 0.24 | | 7 |
| 4/1/2024 | | 6 | | 0.33 | | 6 |
| 5/1/2024 | | 12 | | 0.10 | | 13 |
| 8/1/2024 | | 19 | | 88.9 | | 30 |
| 9/3/2024 | | 9 | | 40.3 | | 18 |
| 10/1/2024 | | 18 | | 37.2 | | 5 |
| 12/2/2024 | | 12 | | 45.8 | | 6 |
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| **AVERAGE** | | 22.3 | | 105.0 | | 43.6 |
| PERMIT DAILY MAXIMUM | | | | | | |

[Some parameters not required to be analyzed as frequently under the new permit.]
[Some results less than detection limit are shown as zero or the detection limit.]

# Keystone Laboratories - Newton

## CERTIFICATE OF ANALYSIS

## 1HB0300

**Page County Landfill Assoc.**

Brian Ward
2032 N Ave
Clarinda, IA 51632

**Project Name: Leachate**

Project / PO Number: / [none]
Received: 02/06/2024
Reported: 02/14/2024

### Analytical Testing Parameters

**Client Sample ID:** Leachate
**Sample Matrix:** Water
**Lab Sample ID:** 1HB0300-01
**Collected By:** PCLF
**Collection Date:** 02/05/2024 10:00

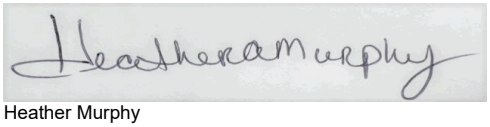
| Determination of Conventional Chemistry Parameters | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **SM 5210 B** | | | | | | | | |
| BOD (5 day) | **31** | 6 | mg/L | 3 | | 02/06/24 1807 | 02/07/24 0546 | BDF |
| **TIMBERLINE** | | | | | | | | |
| Nitrogen, Ammonia | **139** | 10.0 | mg/L | 100 | | 02/12/24 1018 | 02/12/24 1247 | LJS |
| **USGS I-3765-85** | | | | | | | | |
| Total Suspended Solids (TSS) | **43** | 1 | mg/L | 1 | | 02/08/24 0808 | 02/08/24 1432 | MEAH |

### Definitions

**RL:** Reporting Limit

### Report Comments

**Reviewed and Approved By:**



Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
02/14/24 14:37

# CHAIN OF CUSTODY

Keystone LABORATORIES
A Microbac Company

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

1HB0300

Page County Landfill Assoc.
PM: Heather Murphy



Page 2 of 2

**SITE INFORMATION**

Sampler: PCLF

Project: Leachate

**REPORT TO**

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

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

**LAB USE ONLY**

Work Order 1HB0300
Temperature 3.6
Turn-Cooler: Yes

- ☐ 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 | Leachate | Water | GRAB | 2/5/24 | 10:00 | 2 | hod-5210 nh3-timberline tss-i-3765-85 | 01 |

PCLF 2/5/24 10:00am
Relinquished By Date/Time

Received By Date/Time

Relinquished By Date/Time

Received for Lab By 2/6/24 1035
Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

MICROBAC®

# Microbac Laboratories, Inc., Newton

## CERTIFICATE OF ANALYSIS

## 1HC0223

**Page County Landfill Assoc.**

Brian Ward
2032 N Ave
Clarinda, IA 51632

**Project Name: Leachate**

Project / PO Number: N/A
Received: 03/05/2024
Reported: 03/19/2024

### Analytical Testing Parameters

**Client Sample ID:** Leachate
**Sample Matrix:** Water
**Lab Sample ID:** 1HC0223-01
**Collected By:** Ward, Brian
**Collection Date:** 03/04/2024 10:15

| Determination of Conventional Chemistry Parameters | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **SM 5210 B** | | | | | | | | |
| BOD (5 day) | **22** | 6 | mg/L | 3 | | 03/05/24 1627 | 03/05/24 1717 | MND |
| **TIMBERLINE** | | | | | | | | |
| Nitrogen, Ammonia | **237** | 10.0 | mg/L | 100 | | 03/13/24 0934 | 03/18/24 1538 | LJS |
| **USGS I-3765-85** | | | | | | | | |
| Total Suspended Solids (TSS) | **34** | 1 | mg/L | 1 | | 03/07/24 0824 | 03/07/24 1245 | MEAH |

### Definitions

**RL:** Reporting Limit

### Report Comments

**Reviewed and Approved By:**

Sue Thompson
Client Services Manager
03/19/24 07:07

Keystone LABORATORIES
A Microbac Company
600 East 17th Street Sout
Newton, IA 50208
641-792-8451

1HC0223
Page County Landfill Assoc.
PM: Heather Murphy



**SITE INFORMATION**

Sampler: RCLF

Project: Leachate

**REPORT TO**

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

**INVOICE TO**

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

**SPECIAL INSTRUCTIONS**

None

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

**LAB USE ONLY**

Work Order 1HC0223
Temperature 3.4
Turn-Cooler: Yes

☐ 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 | Leachate | Water | GRAB | 3/4/24 | 10:15am | 2 | hod-5210 nh3-timberline<br>tss-i-3765-85 | 01 |

RCLF 3-4-24 10:15am
Relinquished By Date/Time

Received By Date/Time

Relinquished By Date/Time

Echo McMurry 3/5/24 1035
Received for Lab By Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

MICROBAC®

# Microbac Laboratories, Inc., Newton

## CERTIFICATE OF ANALYSIS

## 1HD0140

**Page County Landfill Assoc.**

Brian Ward
2032 N Ave
Clarinda, IA 51632

**Project Name: Leachate**

Project / PO Number: N/A
Received: 04/02/2024
Reported: 04/10/2024

### Analytical Testing Parameters

**Client Sample ID:** Leachate
**Sample Matrix:** Water
**Lab Sample ID:** 1HD0140-01
**Collected By:** PCLF
**Collection Date:** 04/01/2024 10:20

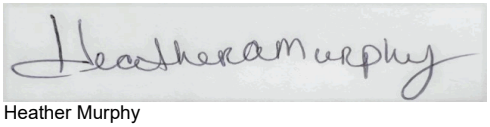
| Determination of Conventional Chemistry Parameters | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **SM 5210 B** | | | | | | | | |
| BOD (5 day) | <6 | 6 | mg/L | 3 | | | 04/02/24 1713 | MND |
| **TIMBERLINE** | | | | | | | | |
| Nitrogen, Ammonia | **0.33** | 0.10 | mg/L | 1 | | 04/08/24 0727 | 04/08/24 1031 | LJS |
| **USGS I-3765-85** | | | | | | | | |
| Total Suspended Solids (TSS) | **6** | 1 | mg/L | 1 | | 04/04/24 1253 | 04/05/24 1019 | RDH |

### Definitions

**RL:** Reporting Limit

### Report Comments

**Reviewed and Approved By:**



Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
04/10/24 14:28

# CHAIN OF CUS

Keystone LABORATORIES
A Microbac Company
600 East 17th Street Sou
Newton, IA 50208
641-792-8451

1HD0140
Page County Landfill Assoc.
PM: Heather Murphy



www.keystonelabs on

**SITE INFORMATION**
Sampler: PCLF
Project: Leachate

**REPORT TO**
Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

**INVOICE TO**
Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

**SPECIAL INSTRUCTIONS**
None

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

**LAB USE ONLY**
Work Order 1HD0140
Temperature 0.3
Turn-Cooler: Yes

- ☐ 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 | Leachate | Water | GRAB | 4/1/24 | 10:20 am | 2 | hod-5210 nh3-timberline tss-i-3765-85 | 01 |

PCLF 4/1/24 10:20 AM
Relinquished By Date/Time

Received By Date/Time

Relinquished By Date/Time

Echo McMurry 4/2/24 10:30
Received for Lab By Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

MICROBAC®

# Microbac Laboratories, Inc., Newton

## CERTIFICATE OF ANALYSIS

## 1HE0168

**Page County Landfill Assoc.**

Brian Ward
2032 N Ave
Clarinda, IA 51632

**Project Name: Leachate**

Project / PO Number: N/A
Received: 05/02/2024
Reported: 05/16/2024

### Analytical Testing Parameters

**Client Sample ID:** Leachate
**Sample Matrix:** Aqueous
**Lab Sample ID:** 1HE0168-01
**Collected By:** PCLF
**Collection Date:** 05/01/2024 11:00

| Determination of Conventional Chemistry Parameters | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **SM 5210 B** | | | | | | | | |
| BOD (5 day) | **12** | 6 | mg/L | 3 | | | 05/02/24 1426 | MND |
| **TIMBERLINE** | | | | | | | | |
| Nitrogen, Ammonia | <0.10 | 0.10 | mg/L | 1 | | 05/14/24 1539 | 05/15/24 1241 | LJS |
| **USGS I-3765-85** | | | | | | | | |
| Total Suspended Solids (TSS) | **13** | 1 | mg/L | 1 | | 05/07/24 1704 | 05/08/24 1317 | MEAH |

### Definitions

**RL:** Reporting Limit

### Report Comments

**Reviewed and Approved By:**

Sue Thompson

Sue Thompson
Client Services Manager
05/16/24 08:01

# CHAIN OF CUSTODY RECORD

Keystone LABORATORIES
A Microbac Company
600 East 17th Street Sout
Newton, IA 50208
641-792-8451

1HE0168

Page County Landfill Assoc.
PM: Heather Murphy



**SITE INFORMATION**

Sampler: PCLF

Project: Leachate

**REPORT TO**

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

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

**LAB USE ONLY**

Work Order 1HE0168
Temperature 1.4
Turn-Cooler: Yes

☐ 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 | Leachate | Water | GRAB | 5/1/24 | 11:00am | 2 | bod-5210 nh3-timberline tss-i-3765-85 | 01 |

PCLF 5-1-24 11:00am
Relinquished By Date/Time

Relinquished By Date/Time

Received By Date/Time

Received for Lab By Stefanie Clymer 5/2/24 10:34
Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

MICROBAC®

# Microbac Laboratories, Inc., Newton

## CERTIFICATE OF ANALYSIS

## 1HG0202

**Page County Landfill Assoc.**

Brian Ward
2032 N Ave
Clarinda, IA 51632

**Project Name: Leachate**

Project / PO Number: N/A
Received: 07/02/2030
Reported: 07/16/2024

### Analytical Testing Parameters

**Client Sample ID:** Leachate
**Sample Matrix:** Aqueous
**Lab Sample ID:** 1HG0202-01
**Collected By:** Unknown
**Collection Date:** 07/01/2024 10:00

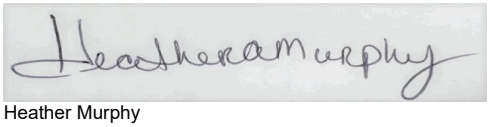
| Determination of Conventional Chemistry Parameters | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **SM 5210 B** | | | | | | | | |
| BOD (5 day) | **20** | 6 | mg/L | 3 | | 07/02/24 1428 | 07/02/24 1737 | MND |
| **TIMBERLINE** | | | | | | | | |
| Nitrogen, Ammonia | **72.4** | 1.00 | mg/L | 10 | | 07/15/24 0751 | 07/15/24 1429 | LNH |
| **USGS I-3765-85** | | | | | | | | |
| Total Suspended Solids (TSS) | **57** | 1 | mg/L | 1 | | 07/03/24 0809 | 07/05/24 1230 | MEAH |

### Definitions

**RL:** Reporting Limit

### Report Comments

**Reviewed and Approved By:**



Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
07/16/24 13:43

# CHAIN OF CUSTODY RECORD

MICROBAC®

600 East 17
Newton, IA
641-792-84

1 H G 0 2 0 2

Page County Landfill Assoc.
PM: Heather Murphy



## SITE INFORMATION

Sampler: PCLF

Project: Leachate

## REPORT TO

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

## INVOICE TO

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

## SPECIAL INSTRUCTIONS

None

**Turn Around Time**

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

## LAB USE ONLY

Work Order 1HG0202

Temperature 1.9

Turn-Cooler: Yes

- ☐ 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 | Leachate | Aqueous | GRAB | 7/1/24 | 10:00am | 2 | hod-5210 nh3-timberline tss-i-3765-85 | 01 |

PCLF 7-1-24 10:00am.
Relinquished By Date/Time

Relinquished By Date/Time

Received By Date/Time

Amy Hoekstetter 7/2/24 10:30
Received for Lab By Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

MICROBAC®

# Microbac Laboratories, Inc., Newton

## CERTIFICATE OF ANALYSIS

## 1HH0266

**Page County Landfill Assoc.**

Brian Ward
2032 N Ave
Clarinda, IA 51632

**Project Name: Leachate**

Project / PO Number: N/A
Received: 08/02/2024
Reported: 08/14/2024

### Analytical Testing Parameters

**Client Sample ID:** Leachate
**Sample Matrix:** Aqueous
**Lab Sample ID:** 1HH0266-01
**Collected By:** unknown
**Collection Date:** 08/01/2024 10:00

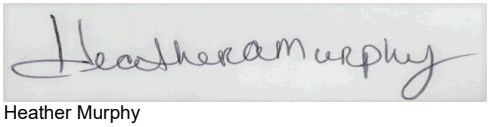
| Determination of Conventional Chemistry Parameters | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **SM 5210 B** | | | | | | | | |
| BOD (5 day) | **19** | 6 | mg/L | 3 | **K2** | | 08/02/24 1539 | MND |
| **TIMBERLINE** | | | | | | | | |
| Nitrogen, Ammonia | **88.9** | 1.00 | mg/L | 10 | | 08/13/24 0706 | 08/14/24 1336 | LNH |
| **USGS I-3765-85** | | | | | | | | |
| Total Suspended Solids (TSS) | **30** | 1 | mg/L | 1 | | 08/06/24 1103 | 08/06/24 1550 | MEAH |

### Definitions

**K2:** Glucose/glutamic acid recovery was below acceptance limits. The reported value is estimated.
**RL:** Reporting Limit

### Report Comments

**Reviewed and Approved By:**



Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
08/14/24 15:55

# CHAIN OF CUSTODY RECORD

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

1 H H 0 2 6 6

Page County Landfill Assoc.
PM: Heather Murphy



## SITE INFORMATION

**Sampler:** PCLF

**Project:** Leachate

## REPORT TO

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

## SPECIAL INSTRUCTIONS

None

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

## LAB USE ONLY

Work Order 1HH02666
Temperature 0.0
Turn-Cooler: Yes

- ☐ 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 | Leachate | Aqueous | GRAB | 8/1/24 | 10:00am | 2 | bod-5210<br>tss-i-3765-85<br>nh3-timberline | 01 |

PCLF 8-1-24 10:00AM
Relinquished By Date/Time

Received By Date/Time

Relinquished By Date/Time

Received for Lab By 8-2-24 10:30
Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

MICROBAC®

# Microbac Laboratories, Inc., Newton

## CERTIFICATE OF ANALYSIS

## 1HI0093

**Page County Landfill Assoc.**

Brian Ward
2032 N Ave
Clarinda, IA 51632

**Project Name: Leachate**

Project / PO Number: N/A
Received: 09/04/2024
Reported: 09/16/2024

### Analytical Testing Parameters

**Client Sample ID:** Leachate
**Sample Matrix:** Aqueous
**Lab Sample ID:** 1HI0093-01
**Collected By:** PCLF
**Collection Date:** 09/03/2024 10:00

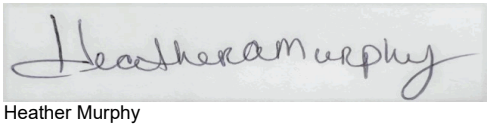
| Determination of Conventional Chemistry Parameters | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **SM 5210 B** | | | | | | | | |
| BOD (5 day) | **9** | 6 | mg/L | 3 | **K3** | 09/04/24 1417 | 09/04/24 1527 | KDA |
| **TIMBERLINE** | | | | | | | | |
| Nitrogen, Ammonia | **40.3** | 1.00 | mg/L | 10 | | 09/12/24 1319 | 09/14/24 1724 | JAC |
| **USGS I-3765-85** | | | | | | | | |
| Total Suspended Solids (TSS) | **18** | 1 | mg/L | 1 | | 09/06/24 0754 | 09/06/24 0912 | MEAH |

### Definitions

**K3:** Glucose/glutamic acid recovery was above acceptance limits. The reported value is estimated.
**RL:** Reporting Limit

### Report Comments

**Reviewed and Approved By:**



Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
09/16/24 08:33

MICROBAC®

600 East 1
Newton, IA
641-792-8

1 H I 0 0 9 3

Page County Landfill Assoc.
PM: Heather Murphy



www.keystonelabs.com

**SITE INFORMATION**

Sampler: PCLF

Project: Leachate

**REPORT TO**

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

**INVOICE TO**

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

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

**LAB USE ONLY**

Work Order 1HI0093

Temperature 3.2

Turn-Cooler: Yes

☐ 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 | Leachate | Aqueous | GRAB | 9/3/24 | 10:00AM | 2 | hard-5210<br>tss-i-3765-85<br>nh3-timberline | 01 |

PCLF 9-3-24 10:00AM
Relinquished By Date/Time

Received By Date/Time

Relinquished By Date/Time

Stephanie Clymer 9/4/24 1041
Received for Lab By Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

MICROBAC®

# Microbac Laboratories, Inc., Newton

## CERTIFICATE OF ANALYSIS

## 1HJ0137

**Page County Landfill Assoc.**

Brian Ward
2032 N Ave
Clarinda, IA 51632

**Project Name: Leachate**

Project / PO Number: N/A
Received: 10/02/2024
Reported: 10/10/2024

### Analytical Testing Parameters

**Client Sample ID:** Leachate
**Sample Matrix:** Aqueous
**Lab Sample ID:** 1HJ0137-01
**Collected By:** PCLF
**Collection Date:** 10/01/2024 10:15

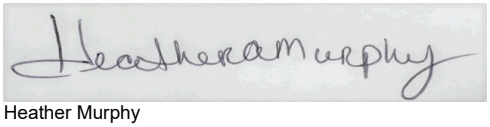
| Determination of Conventional Chemistry Parameters | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **SM 5210 B** | | | | | | | | |
| BOD (5 day) | **18** | 6 | mg/L | 3 | | 10/02/24 1741 | 10/02/24 1741 | MND |
| **TIMBERLINE** | | | | | | | | |
| Nitrogen, Ammonia | **37.2** | 1.00 | mg/L | 10 | | 10/08/24 0842 | 10/08/24 1219 | JAC |
| **USGS I-3765-85** | | | | | | | | |
| Total Suspended Solids (TSS) | **5** | 1 | mg/L | 1 | | 10/04/24 1450 | 10/07/24 1310 | RDH |

### Definitions

**RL:** Reporting Limit

### Report Comments

**Reviewed and Approved By:**



Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
10/10/24 13:15

# CHAIN OF CUST

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

1HJ0137
Page County Landfill Assoc.
PM: Heather Murphy



**SITE INFORMATION**
Sampler: PCLF
Project: Leachate

**REPORT TO**
Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

**INVOICE TO**
Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

**SPECIAL INSTRUCTIONS**
None

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

**LAB USE ONLY**
Work Order 1HJ0137
Temperature 1.2
Turn-Cooler: Yes

- ☐ 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 | Leachate | Aqueous | GRAB | 10/1/24 | 10:15am | 2 | bod-5210 nh3-ammonia tss-i-3765-85 | 01 |

PCLF 10-1-24 10:15am
Relinquished By Date/Time

Received By Date/Time

Relinquished By Date/Time

Received for Lab By 10/2/24 10:20
Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

MICROBAC®

# Microbac Laboratories, Inc., Newton

## CERTIFICATE OF ANALYSIS

## 1HL0110

**Page County Landfill Assoc.**

Brian Ward
2032 N Ave
Clarinda, IA 51632

**Project Name: Leachate**

Project / PO Number: N/A
Received: 12/03/2024
Reported: 12/13/2024

### Analytical Testing Parameters

**Client Sample ID:** Leachate
**Sample Matrix:** Aqueous
**Lab Sample ID:** 1HL0110-01
**Collected By:** PCLF
**Collection Date:** 12/02/2024 10:00

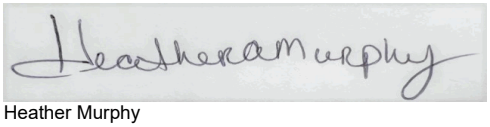
| Determination of Conventional Chemistry Parameters | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **SM 5210 B-2016** | | | | | | | | |
| BOD (5 day) | **12** | 6 | mg/L | 3 | | 12/03/24 1335 | 12/03/24 1616 | MND |
| **TIMBERLINE** | | | | | | | | |
| Nitrogen, Ammonia | **45.8** | 1.00 | mg/L | 10 | | 12/09/24 1349 | 12/09/24 1640 | SDF |
| **USGS I-3765-85** | | | | | | | | |
| Total Suspended Solids (TSS) | **6** | 2 | mg/L | 2 | | 12/04/24 1432 | 12/05/24 1110 | MEAH |

### Definitions

**RL:** Reporting Limit

### Report Comments

**Reviewed and Approved By:**



Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
12/13/24 08:17

**Keystone LABORATORIES**
*A Microbac Company*

600 East
Newton,
641-792-

1 H L 0 1 1 0
**Page County Landfill Assoc.**
PM: Heather Murphy



www.keystonelabs.

**SITE INFORMATION**
Sampler: PCLF
Project: Leachate

**REPORT TO**
Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

**INVOICE TO**
Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

**SPECIAL INSTRUCTIONS**
None

**Turn-Around Time**
☒ Standard ☐ RUSH, need by ___/___/___

**LAB USE ONLY**
Work Order 1HL0110
Temperature 0.0
Turn-Cooler: Yes

☐ 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 | Leachate | Aqueous | GRAB | 12/2/24 | 10:00am | 2 | bod-5210 nh3-timberline tss-i-3765-85 | 01 |

PCLF 12/2/24 10:00am
Relinquished By Date/Time

Relinquished By Date/Time

Received By Date/Time

Kory Hochstetler 12/3/24 10:27
Received for Lab By Date/Time

Remarks:

Original - Lab Copy Yellow - Sampler Copy

Appendix H.4 – Annual Leachate Testing Laboratory Report

Microbac Laboratories, Inc., Newton

# CERTIFICATE OF ANALYSIS

1HC1212

Project Description

Leachate Sampling

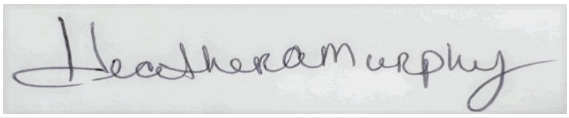
For:

Todd Whipple

**HLW Engineering**

PO Box 314

Story City, IA 50248



Heather Murphy

Customer Relationship Specialist

Tuesday, April 2, 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

1HC1212

**HLW Engineering**

Todd Whipple
PO Box 314
Story City, IA 50248

**Project Name: Leachate Sampling**

Project / PO Number: N/A
Received: 03/19/2024
Reported: 04/02/2024

**Sample Summary Report**

| Sample Name | Laboratory ID | Client Matrix | Sample Type | Sample Begin | Sample Taken | Lab Received |
|---|---|---|---|---|---|---|
| Leachate Tank | 1HC1212-01 | Water | GRAB | | 03/18/24 16:06 | 03/19/24 10:45 |

**Analytical Testing Parameters**

| | | | |
|---|---|---|---|
| **Client Sample ID:** | Leachate Tank | | |
| **Sample Matrix:** | Water | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1212-01 | **Collection Date:** | 03/18/2024 16:06 |

| Determination of Volatile Organic Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 5030B/EPA 624** | | | | | | | | |
| Chloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Vinyl Chloride | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Bromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Chloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| 1,1-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Methylene Chloride | <5.0 | 5.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| trans-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| 1,1-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| 2-Butanone (MEK) | <10.0 | 10.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Chloroform | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| 1,1,1-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Carbon Tetrachloride | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Benzene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| 1,2-Dichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Trichloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| 1,2-Dichloropropane | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Dibromomethane | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Bromodichloromethane | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| 2-Chloroethylvinyl ether | <10.0 | 10.0 | ug/L | 1 | **P-02** | 03/20/24 0000 | 03/20/24 1332 | CSM |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Toluene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| trans-1,3-Dichloropropene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| 1,1,2-Trichloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Tetrachloroethylene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Chlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Ethylbenzene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Xylenes, total | <2.0 | 2.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Bromoform | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| 1,1,2,2-Tetrachloroethane | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| 1,3-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| 1,4-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Surrogate: Dibromofluoromethane | 107 | Limit: 79-129 | % Rec | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Surrogate: 1,2-Dichloroethane-d4 | 107 | Limit: 66-134 | % Rec | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Surrogate: Toluene-d8 | 98.0 | Limit: 91-113 | % Rec | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |
| Surrogate: 4-Bromofluorobenzene | 103 | Limit: 83-112 | % Rec | 1 | | 03/20/24 0000 | 03/20/24 1332 | CSM |

| Determination of Base/Neutral/Acid Extractable Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 625** | | | | | | | | |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | Leachate Tank | | |
| **Sample Matrix:** | Water | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1212-01 | **Collection Date:** | 03/18/2024 16:06 |

| Determination of Base/Neutral/Acid Extractable Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| N-Nitrosodimethylamine | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Phenol | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Aniline | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Bis(2-Chloroethyl) Ether | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2-Chlorophenol | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 1,3-Dichlorobenzene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 1,4-Dichlorobenzene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Benzyl Alcohol | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 1,2-Dichlorobenzene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2-Methylphenol (o-Cresol) | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Bis[2-Chloroisopropyl]ether | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| n-Nitroso-di-n-propylamine | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| (3 & 4)-Methylphenol | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Hexachloroethane | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Nitrobenzene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Isophorone | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2-Nitrophenol | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2,4-Dimethylphenol | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Bis (2-Chloroethoxy) Methane | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2,4-Dichlorophenol | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 1,2,4-Trichlorobenzene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Naphthalene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 4-Chloroaniline | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Hexachlorobutadiene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 4-Chloro-3-methylphenol | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2-Methylnaphthalene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Hexachlorocyclopentadiene | <20 | 20 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2,4,6-Trichlorophenol | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2,4,5-Trichlorophenol | <50 | 50 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2-Chloronaphthalene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2-Nitroaniline | <50 | 50 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Dimethylphthalate | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Acenaphthylene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2,6-Dinitrotoluene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 3-Nitroaniline | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Acenaphthene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2,4-Dinitrophenol | <20 | 20 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Dibenzofuran | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 2,4-Dinitrotoluene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 4-Nitrophenol | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Diethyl Phthalate | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Fluorene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 4-Chlorophenyl Phenyl Ether | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | Leachate Tank | | |
| **Sample Matrix:** | Water | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1212-01 | **Collection Date:** | 03/18/2024 16:06 |

| Determination of Base/Neutral/Acid Extractable Compounds | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| 4-Nitroaniline | <20 | 20 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 4,6-Dinitro-2-methylphenol | <20 | 20 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| N-Nitrosodiphenylamine | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Azobenzene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 4-Bromophenyl Phenyl Ether | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Hexachlorobenzene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Pentachlorophenol | <20 | 20 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Phenanthrene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Anthracene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Di-n-butyl Phthalate | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Fluoranthene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Benzidine | <50 | 50 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Pyrene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Butyl Benzyl Phthalate | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Benzo(a)anthracene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Chrysene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Bis(2-Ethylhexyl) Phthalate | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Di-n-octyl Phthalate | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Indeno(1,2,3-cd)Pyrene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| 3,3´-Dichlorobenzidine | <20 | 20 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Benzo(b)Fluoranthene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Benzo(k)Fluoranthene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Benzo(a)Pyrene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Dibenzo(a,h)anthracene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Benzo(g,h,i)perylene | <10 | 10 | ug/L | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Surrogate: 2-Fluorophenol | 64.3 | Limit: 19-139 | % Rec | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Surrogate: Phenol-d6 | 67.3 | Limit: 14-154 | % Rec | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Surrogate: Nitrobenzene-d5 | 73.7 | Limit: 17-146 | % Rec | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Surrogate: 2-Fluorobiphenyl | 83.0 | Limit: 18-122 | % Rec | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Surrogate: 2,4,6-Tribromophenol | 105 | Limit: 21-151 | % Rec | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |
| Surrogate: Terphenyl-dl4 | 66.7 | Limit: 27-131 | % Rec | 1 | | 03/25/24 1217 | 04/01/24 1200 | EPP |

| Determination of Organochlorine Insecticides & PCBs | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 3510C/EPA 608** | | | | | | | | |
| Alpha-BHC | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Gamma-BHC [Lindane] | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Beta-BHC | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Heptachlor | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Delta-BHC | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Aldrin | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Heptachlor Epoxide | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Endosulfan I | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| 4,4`-DDE | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | Leachate Tank | | |
| **Sample Matrix:** | Water | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1212-01 | **Collection Date:** | 03/18/2024 16:06 |

| Determination of Organochlorine Insecticides & PCBs | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| Dieldrin | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Endrin | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| 4,4`-DDD | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Endosulfan II | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| 4,4`-DDT | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Endrin Aldehyde | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Endosulfan Sulfate | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Methoxychlor | <0.05 | 0.05 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Chlordane | <0.10 | 0.10 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Toxaphene | <0.20 | 0.20 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Arochlor 1016 | <0.20 | 0.20 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Arochlor 1221 | <0.20 | 0.20 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Arochlor 1232 | <0.20 | 0.20 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Arochlor 1242 | <0.20 | 0.20 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Arochlor 1248 | <0.20 | 0.20 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Arochlor 1254 | <0.20 | 0.20 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Arochlor 1260 | <0.20 | 0.20 | ug/L | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Surrogate: Decachlorobiphenyl | 68.2 | Limit: 19-120 | % Rec | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |
| Surrogate: Tetrachloro-m-xylene | 71.2 | Limit: 30-119 | % Rec | 1 | | 03/21/24 1711 | 04/01/24 1326 | EPP |

| Determination of Conventional Chemistry Parameters | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **5310B** | | | | | | | | |
| Total Organic Carbon | **35.5** | 0.50 | mg/L | 1 | | 03/27/24 0000 | 03/27/24 1134 | CSM |
| **EPA 1664A** | | | | | | | | |
| Oil and Grease | <4 | 4 | mg/L | 1 | | 03/22/24 1032 | 03/26/24 1100 | CCB |
| **EPA 351.2** | | | | | | | | |
| Nitrogen, Kjeldahl, total | **4.29** | 2.00 | mg/L | 1 | | 03/21/24 1007 | 03/25/24 1307 | AKK |
| **SM 5210 B** | | | | | | | | |
| BOD (5 day) | <6 | 6 | mg/L | 3 | | 03/20/24 1011 | 03/20/24 1011 | MND |
| **TIMBERLINE** | | | | | | | | |
| Nitrogen, Ammonia | **0.24** | 0.10 | mg/L | 1 | | 03/28/24 1445 | 03/29/24 1333 | LNH |
| **USGS I-1750-85** | | | | | | | | |
| Total Dissolved Solids (TDS) | **971** | 5 | mg/L | 1 | | 03/22/24 0755 | 03/22/24 1030 | MEAH |
| **USGS I-3765-85** | | | | | | | | |
| Total Suspended Solids (TSS) | **7** | 1 | mg/L | 1 | | 03/21/24 0830 | 03/22/24 1027 | RDH |

| Determination of Total Metals | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **200.7** | | | | | | | | |
| Iron, total | **0.185** | 0.100 | mg/L | 1 | | 03/20/24 0800 | 03/20/24 1941 | JAR |
| **245.1** | | | | | | | | |
| Mercury, total | <0.00050 | 0.00050 | mg/L | 1 | | 03/22/24 1503 | 03/26/24 1427 | JAR |

| | | | |
|---|---|---|---|
| **Client Sample ID:** | Leachate Tank | | |
| **Sample Matrix:** | Water | **Collected By:** | JGH |
| **Lab Sample ID:** | 1HC1212-01 | **Collection Date:** | 03/18/2024 16:06 |

| Determination of Total Metals | Result | RL | Units | DF | Note | Prepared | Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|
| **EPA 200.8** | | | | | | | | |
| Arsenic, total | **0.0032** | 0.0020 | mg/L | 4 | | 03/25/24 0840 | 03/25/24 1934 | RVV |
| Barium, total | **0.270** | 0.0020 | mg/L | 4 | | 03/25/24 0840 | 03/25/24 1934 | RVV |
| Cadmium, total | <0.0002 | 0.0002 | mg/L | 4 | | 03/25/24 0840 | 03/25/24 1934 | RVV |
| Chromium, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/25/24 0840 | 03/25/24 1934 | RVV |
| Copper, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/25/24 0840 | 03/25/24 1934 | RVV |
| Lead, total | <0.0008 | 0.0008 | mg/L | 4 | | 03/25/24 0840 | 03/25/24 1934 | RVV |
| Nickel, total | **0.0279** | 0.0040 | mg/L | 4 | | 03/25/24 0840 | 03/25/24 1934 | RVV |
| Selenium, total | <0.0040 | 0.0040 | mg/L | 4 | | 03/25/24 0840 | 03/25/24 1934 | RVV |
| Silver, total | <0.0020 | 0.0020 | mg/L | 4 | | 03/25/24 0840 | 03/25/24 1934 | RVV |
| Zinc, total | <0.0200 | 0.0200 | mg/L | 4 | | 03/25/24 0840 | 03/25/24 1934 | RVV |

**Batch Log Summary**

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| 200.7 | 1HC1067 | 1HC1067-BLK1 | |
| | | 1HC1067-BS1 | |
| | | 1HC1067-MS1 | 1HC1107-01 |
| | | 1HC1067-MSD1 | 1HC1107-01 |
| | | 1HC1067-PS1 | 1HC1107-01 |
| | | 1HC1212-01 | Leachate Tank |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| SM 5210 B | 1HC1094 | 1HC1094-BLK1 | |
| | | 1HC1094-SRM1 | |
| | | 1HC1094-DUP1 | 1HC1186-01 |
| | | 1HC1212-01 | Leachate Tank |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| USGS I-3765-85 | 1HC1167 | 1HC1167-DUP1 | 1HC1210-01 |
| | | 1HC1167-BS1 | |
| | | 1HC1212-01 | Leachate Tank |
| | | 1HC1167-BLK1 | |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 624 | 1HC1175 | 1HC1175-BS1 | |
| | | 1HC1175-BSD1 | |
| | | 1HC1175-BLK1 | |
| | | 1HC1212-01 | Leachate Tank |
| | | 1HC1175-MS1 | 1HC1212-01 |
| | | 1HC1175-MSD1 | 1HC1212-01 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 351.2 | 1HC1186 | 1HC1186-BLK1 | |
| | | 1HC1186-BS1 | |
| | | 1HC1186-MS1 | 1HC1164-02 |
| | | 1HC1186-MSD1 | 1HC1164-02 |
| | | 1HC1212-01 | Leachate Tank |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 608 | 1HC1238 | 1HC1238-BLK1 | |
| | | 1HC1238-BS1 | |
| | | 1HC1238-BSD1 | |
| | | 1HC1212-01 | Leachate Tank |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|

| | | | |
|---|---|---|---|
| USGS I-1750-85 | 1HC1249 | 1HC1212-01 | Leachate Tank |
| | | 1HC1249-DUP1 | 1HC1428-01 |
| | | 1HC1249-BLK1 | |
| | | 1HC1249-BS1 | |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 1664A | 1HC1269 | 1HC1269-BLK1 | |
| | | 1HC1269-DUP1 | 1HC1464-01 |
| | | 1HC1269-BS1 | |
| | | 1HC1212-01 | Leachate Tank |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| 245.1 | 1HC1285 | 1HC1285-BLK1 | |
| | | 1HC1285-BS1 | |
| | | 1HC1285-MS1 | 1HC1142-01 |
| | | 1HC1285-MSD1 | 1HC1142-01 |
| | | 1HC1212-01 | Leachate Tank |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 200.8 | 1HC1317 | 1HC1317-BLK1 | |
| | | 1HC1317-BS1 | |
| | | 1HC1212-01 | Leachate Tank |
| | | 1HC1317-MS1 | 1HC1275-02 |
| | | 1HC1317-MSD1 | 1HC1275-02 |
| | | 1HC1317-PS1 | 1HC1275-02 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| EPA 625 | 1HC1348 | 1HC1348-BLK1 | |
| | | 1HC1348-BS1 | |
| | | 1HC1348-BSD1 | |
| | | 1HC1212-01 | Leachate Tank |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| TIMBERLINE | 1HC1602 | 1HC1602-BLK1 | |
| | | 1HC1602-BS1 | |
| | | 1HC1602-MS1 | 1HC1186-02 |
| | | 1HC1602-MSD1 | 1HC1186-02 |
| | | 1HC1212-01 | Leachate Tank |
| | | 1HC1602-MS2 | 1HC1201-01 |
| | | 1HC1602-MSD2 | 1HC1201-01 |

| Method | Batch | Laboratory ID | Client / Source ID |
|---|---|---|---|
| 5310B | 1HC1664 | 1HC1664-BS1 | |
| | | 1HC1664-BSD1 | |
| | | 1HC1664-BLK1 | |

| | | | |
|---|---|---|---|
| 5310B | 1HC1664 | 1HC1212-01 | Leachate Tank |
| | | 1HC1664-DUP1 | 1HC1212-01 |

**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 1HC1175 - EPA 5030B - EPA 624** | | | | | | | | | | |
| **Blank (1HC1175-BLK1)** | | | Prepared: 03/20/24 00:00 Analyzed: 03/20/24 11:35 | | | | | | | |
| 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 | | | | | | | |
| 1,1-Dichloroethylene | <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 | | | | | | | |
| cis-1,2-Dichloroethylene | <1.0 | 1.0 | ug/L | | | | | | | |
| 2-Butanone (MEK) | <10.0 | 10.0 | 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 | | | | | | | |
| 2-Chloroethylvinyl ether | <10.0 | 10.0 | ug/L | | | | | | | |
| cis-1,3-Dichloropropene | <1.0 | 1.0 | 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 | | | | | | | |
| Chlorobenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| Ethylbenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| Xylenes, total | <2.0 | 2.0 | ug/L | | | | | | | |
| Bromoform | <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 | | | | | | | |
| 1,2-Dichlorobenzene | <1.0 | 1.0 | ug/L | | | | | | | |
| *Surrogate: Dibromofluoromethane* | *54.2* | | ug/L | *50.2* | | *108* | *79-129* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *54.0* | | ug/L | *50.1* | | *108* | *66-134* | | | |
| *Surrogate: Toluene-d8* | *49.5* | | ug/L | *50.4* | | *98.2* | *91-113* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *52.0* | | ug/L | *50.1* | | *104* | *83-112* | | | |
| **LCS (1HC1175-BS1)** | | | Prepared: 03/20/24 00:00 Analyzed: 03/20/24 10:15 | | | | | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1175 - EPA 5030B - EPA 624** | | | | | | | | | | |
| **LCS (1HC1175-BS1)** | | | | Prepared: 03/20/24 00:00 Analyzed: 03/20/24 10:15 | | | | | | |
| Chloromethane | 35.89 | 1.0 | ug/L | 30.6 | | 117 | 63-145 | | | |
| Vinyl Chloride | 31.79 | 1.0 | ug/L | 30.2 | | 105 | 68-145 | | | |
| Bromomethane | 33.97 | 1.0 | ug/L | 28.8 | | 118 | 69-150 | | | |
| Chloroethane | 34.99 | 1.0 | ug/L | 31.6 | | 111 | 74-134 | | | |
| 1,1-Dichloroethylene | 57.71 | 1.0 | ug/L | 50.0 | | 115 | 76-139 | | | |
| Methylene Chloride | 48.60 | 5.0 | ug/L | 50.0 | | 97.2 | 67-141 | | | |
| trans-1,2-Dichloroethylene | 53.25 | 1.0 | ug/L | 50.0 | | 106 | 71-137 | | | |
| 1,1-Dichloroethane | 52.04 | 1.0 | ug/L | 50.0 | | 104 | 72-130 | | | |
| cis-1,2-Dichloroethylene | 53.05 | 1.0 | ug/L | 49.5 | | 107 | 81-134 | | | |
| 2-Butanone (MEK) | 110.7 | 10.0 | ug/L | 103 | | 107 | 44-158 | | | |
| Chloroform | 51.63 | 1.0 | ug/L | 50.0 | | 103 | 76-132 | | | |
| 1,1,1-Trichloroethane | 47.64 | 1.0 | ug/L | 50.0 | | 95.3 | 65-122 | | | |
| Carbon Tetrachloride | 52.13 | 1.0 | ug/L | 50.0 | | 104 | 66-132 | | | |
| Benzene | 48.99 | 1.0 | ug/L | 50.0 | | 98.0 | 77-130 | | | |
| 1,2-Dichloroethane | 47.68 | 1.0 | ug/L | 50.0 | | 95.4 | 75-124 | | | |
| Trichloroethylene | 48.28 | 1.0 | ug/L | 50.0 | | 96.6 | 79-126 | | | |
| 1,2-Dichloropropane | 49.01 | 1.0 | ug/L | 50.0 | | 98.0 | 79-128 | | | |
| Dibromomethane | 52.20 | 1.0 | ug/L | 50.0 | | 104 | 71-139 | | | |
| Bromodichloromethane | 47.49 | 1.0 | ug/L | 50.0 | | 95.0 | 76-122 | | | |
| 2-Chloroethylvinyl ether | 102.2 | 10.0 | ug/L | 103 | | 99.6 | 50-169 | | | |
| cis-1,3-Dichloropropene | 46.86 | 1.0 | ug/L | 50.3 | | 93.1 | 74-122 | | | |
| Toluene | 48.44 | 1.0 | ug/L | 50.0 | | 96.9 | 76-128 | | | |
| trans-1,3-Dichloropropene | 46.52 | 1.0 | ug/L | 50.4 | | 92.3 | 73-125 | | | |
| 1,1,2-Trichloroethane | 48.14 | 1.0 | ug/L | 50.0 | | 96.3 | 74-126 | | | |
| Tetrachloroethylene | 47.51 | 1.0 | ug/L | 50.0 | | 95.0 | 68-124 | | | |
| Chlorobenzene | 45.65 | 1.0 | ug/L | 50.0 | | 91.3 | 77-120 | | | |
| Ethylbenzene | 47.18 | 1.0 | ug/L | 50.0 | | 94.4 | 76-118 | | | |
| Xylenes, total | 139.8 | 2.0 | ug/L | 150 | | 93.2 | 74-121 | | | |
| Bromoform | 51.91 | 1.0 | ug/L | 50.0 | | 104 | 68-128 | | | |
| 1,1,2,2-Tetrachloroethane | 46.39 | 1.0 | ug/L | 49.8 | | 93.1 | 62-128 | | | |
| 1,3-Dichlorobenzene | 46.10 | 1.0 | ug/L | 50.0 | | 92.2 | 72-123 | | | |
| 1,4-Dichlorobenzene | 47.28 | 1.0 | ug/L | 50.0 | | 94.6 | 75-120 | | | |
| 1,2-Dichlorobenzene | 46.21 | 1.0 | ug/L | 50.0 | | 92.4 | 72-121 | | | |
| *Surrogate: Dibromofluoromethane* | *53.9* | | ug/L | *50.2* | | *107* | *79-129* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *53.0* | | ug/L | *50.1* | | *106* | *66-134* | | | |
| *Surrogate: Toluene-d8* | *50.6* | | ug/L | *50.4* | | *100* | *91-113* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.2* | | ug/L | *50.1* | | *100* | *83-112* | | | |
| **LCS Dup (1HC1175-BSD1)** | | | | Prepared: 03/20/24 00:00 Analyzed: 03/20/24 10:42 | | | | | | |
| Chloromethane | 32.78 | 1.0 | ug/L | 30.6 | | 107 | 63-145 | 9.06 | 27 | |
| Vinyl Chloride | 28.47 | 1.0 | ug/L | 30.2 | | 94.2 | 68-145 | 11.0 | 30 | |
| Bromomethane | 32.55 | 1.0 | ug/L | 28.8 | | 113 | 69-150 | 4.27 | 30 | |
| Chloroethane | 31.89 | 1.0 | ug/L | 31.6 | | 101 | 74-134 | 9.27 | 29 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1175 - EPA 5030B - EPA 624** | | | | | | | | | | |
| **LCS Dup (1HC1175-BSD1)** | | | | Prepared: 03/20/24 00:00 Analyzed: 03/20/24 10:42 | | | | | | |
| 1,1-Dichloroethylene | 52.40 | 1.0 | ug/L | 50.0 | | 105 | 76-139 | 9.64 | 30 | |
| Methylene Chloride | 47.32 | 5.0 | ug/L | 50.0 | | 94.6 | 67-141 | 2.67 | 25 | |
| trans-1,2-Dichloroethylene | 49.71 | 1.0 | ug/L | 50.0 | | 99.4 | 71-137 | 6.88 | 29 | |
| 1,1-Dichloroethane | 49.38 | 1.0 | ug/L | 50.0 | | 98.8 | 72-130 | 5.25 | 27 | |
| cis-1,2-Dichloroethylene | 49.90 | 1.0 | ug/L | 49.5 | | 101 | 81-134 | 6.12 | 23 | |
| 2-Butanone (MEK) | 107.0 | 10.0 | ug/L | 103 | | 104 | 44-158 | 3.45 | 25 | |
| Chloroform | 49.00 | 1.0 | ug/L | 50.0 | | 98.0 | 76-132 | 5.23 | 26 | |
| 1,1,1-Trichloroethane | 44.27 | 1.0 | ug/L | 50.0 | | 88.6 | 65-122 | 7.33 | 29 | |
| Carbon Tetrachloride | 48.13 | 1.0 | ug/L | 50.0 | | 96.3 | 66-132 | 7.98 | 30 | |
| Benzene | 45.84 | 1.0 | ug/L | 50.0 | | 91.7 | 77-130 | 6.64 | 27 | |
| 1,2-Dichloroethane | 46.19 | 1.0 | ug/L | 50.0 | | 92.4 | 75-124 | 3.17 | 25 | |
| Trichloroethylene | 45.34 | 1.0 | ug/L | 50.0 | | 90.7 | 79-126 | 6.28 | 28 | |
| 1,2-Dichloropropane | 46.92 | 1.0 | ug/L | 50.0 | | 93.8 | 79-128 | 4.36 | 26 | |
| Dibromomethane | 50.97 | 1.0 | ug/L | 50.0 | | 102 | 71-139 | 2.38 | 27 | |
| Bromodichloromethane | 46.08 | 1.0 | ug/L | 50.0 | | 92.2 | 76-122 | 3.01 | 24 | |
| 2-Chloroethylvinyl ether | 99.92 | 10.0 | ug/L | 103 | | 97.4 | 50-169 | 2.27 | 28 | |
| cis-1,3-Dichloropropene | 45.92 | 1.0 | ug/L | 50.3 | | 91.2 | 74-122 | 2.03 | 27 | |
| Toluene | 45.45 | 1.0 | ug/L | 50.0 | | 90.9 | 76-128 | 6.37 | 28 | |
| trans-1,3-Dichloropropene | 45.74 | 1.0 | ug/L | 50.4 | | 90.7 | 73-125 | 1.69 | 27 | |
| 1,1,2-Trichloroethane | 47.27 | 1.0 | ug/L | 50.0 | | 94.5 | 74-126 | 1.82 | 26 | |
| Tetrachloroethylene | 44.38 | 1.0 | ug/L | 50.0 | | 88.8 | 68-124 | 6.81 | 28 | |
| Chlorobenzene | 43.83 | 1.0 | ug/L | 50.0 | | 87.7 | 77-120 | 4.07 | 27 | |
| Ethylbenzene | 44.24 | 1.0 | ug/L | 50.0 | | 88.5 | 76-118 | 6.43 | 27 | |
| Xylenes, total | 133.2 | 2.0 | ug/L | 150 | | 88.8 | 74-121 | 4.84 | 27 | |
| Bromoform | 51.47 | 1.0 | ug/L | 50.0 | | 103 | 68-128 | 0.851 | 25 | |
| 1,1,2,2-Tetrachloroethane | 45.42 | 1.0 | ug/L | 49.8 | | 91.1 | 62-128 | 2.11 | 28 | |
| 1,3-Dichlorobenzene | 44.55 | 1.0 | ug/L | 50.0 | | 89.1 | 72-123 | 3.42 | 29 | |
| 1,4-Dichlorobenzene | 45.93 | 1.0 | ug/L | 50.0 | | 91.9 | 75-120 | 2.90 | 26 | |
| 1,2-Dichlorobenzene | 45.34 | 1.0 | ug/L | 50.0 | | 90.7 | 72-121 | 1.90 | 30 | |
| *Surrogate: Dibromofluoromethane* | *54.0* | | ug/L | *50.2* | | *108* | *79-129* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *53.0* | | ug/L | *50.1* | | *106* | *66-134* | | | |
| *Surrogate: Toluene-d8* | *50.4* | | ug/L | *50.4* | | *100* | *91-113* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.9* | | ug/L | *50.1* | | *102* | *83-112* | | | |
| **Matrix Spike (1HC1175-MS1)** | **Source: 1HC1212-01** | | | Prepared: 03/20/24 00:00 Analyzed: 03/20/24 15:18 | | | | | | |
| Chloromethane | 341.5 | 10.0 | ug/L | 306 | ND | 111 | 50-155 | | | |
| Vinyl Chloride | 309.9 | 10.0 | ug/L | 302 | ND | 103 | 64-148 | | | |
| Bromomethane | 423.9 | 10.0 | ug/L | 288 | ND | 147 | 50-159 | | | |
| Chloroethane | 337.6 | 10.0 | ug/L | 316 | ND | 107 | 65-144 | | | |
| 1,1-Dichloroethylene | 571.4 | 10.0 | ug/L | 500 | ND | 114 | 78-139 | | | |
| Methylene Chloride | 477.4 | 50.0 | ug/L | 500 | ND | 95.5 | 65-144 | | | |
| trans-1,2-Dichloroethylene | 525.9 | 10.0 | ug/L | 500 | ND | 105 | 67-142 | | | |
| 1,1-Dichloroethane | 513.0 | 10.0 | ug/L | 500 | ND | 103 | 71-133 | | | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1175 - EPA 5030B - EPA 624** | | | | | | | | | | |
| **Matrix Spike (1HC1175-MS1)** | **Source: 1HC1212-01** | | Prepared: 03/20/24 00:00 Analyzed: 03/20/24 15:18 | | | | | | | |
| cis-1,2-Dichloroethylene | 531.5 | 10.0 | ug/L | 495 | ND | 107 | 76-142 | | | |
| 2-Butanone (MEK) | 1009 | 100 | ug/L | 1030 | ND | 97.7 | 48-169 | | | |
| Chloroform | 506.1 | 10.0 | ug/L | 500 | ND | 101 | 75-133 | | | |
| 1,1,1-Trichloroethane | 477.1 | 10.0 | ug/L | 500 | ND | 95.5 | 66-120 | | | |
| Carbon Tetrachloride | 523.5 | 10.0 | ug/L | 500 | ND | 105 | 67-132 | | | |
| Benzene | 500.8 | 10.0 | ug/L | 500 | ND | 100 | 79-128 | | | |
| 1,2-Dichloroethane | 472.4 | 10.0 | ug/L | 500 | ND | 94.5 | 74-124 | | | |
| Trichloroethylene | 500.3 | 10.0 | ug/L | 500 | ND | 100 | 82-122 | | | |
| 1,2-Dichloropropane | 494.1 | 10.0 | ug/L | 500 | ND | 98.8 | 80-126 | | | |
| Dibromomethane | 525.0 | 10.0 | ug/L | 500 | ND | 105 | 62-141 | | | |
| Bromodichloromethane | 475.7 | 10.0 | ug/L | 500 | ND | 95.1 | 77-119 | | | |
| 2-Chloroethylvinyl ether | <100 | 100 | ug/L | 1030 | ND | 7.96 | 10-157 | | | QM-05 |
| cis-1,3-Dichloropropene | 479.7 | 10.0 | ug/L | 503 | ND | 95.3 | 69-120 | | | |
| Toluene | 501.3 | 10.0 | ug/L | 500 | ND | 100 | 80-125 | | | |
| trans-1,3-Dichloropropene | 476.9 | 10.0 | ug/L | 504 | ND | 94.6 | 70-122 | | | |
| 1,1,2-Trichloroethane | 490.5 | 10.0 | ug/L | 500 | ND | 98.1 | 73-127 | | | |
| Tetrachloroethylene | 487.6 | 10.0 | ug/L | 500 | ND | 97.5 | 70-122 | | | |
| Chlorobenzene | 464.0 | 10.0 | ug/L | 500 | ND | 92.8 | 81-114 | | | |
| Ethylbenzene | 474.7 | 10.0 | ug/L | 500 | ND | 94.9 | 79-113 | | | |
| Xylenes, total | 1425 | 20.0 | ug/L | 1500 | ND | 95.0 | 79-114 | | | |
| Bromoform | 500.0 | 10.0 | ug/L | 500 | ND | 100 | 66-126 | | | |
| 1,1,2,2-Tetrachloroethane | 470.0 | 10.0 | ug/L | 498 | ND | 94.3 | 56-132 | | | |
| 1,3-Dichlorobenzene | 474.4 | 10.0 | ug/L | 500 | ND | 94.9 | 69-125 | | | |
| 1,4-Dichlorobenzene | 482.6 | 10.0 | ug/L | 500 | ND | 96.5 | 73-119 | | | |
| 1,2-Dichlorobenzene | 475.1 | 10.0 | ug/L | 500 | ND | 95.0 | 71-117 | | | |
| *Surrogate: Dibromofluoromethane* | *524* | | ug/L | *502* | | *104* | *79-129* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *513* | | ug/L | *501* | | *103* | *66-134* | | | |
| *Surrogate: Toluene-d8* | *515* | | ug/L | *504* | | *102* | *91-113* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *500* | | ug/L | *501* | | *99.7* | *83-112* | | | |
| **Matrix Spike Dup (1HC1175-MSD1)** | **Source: 1HC1212-01** | | Prepared: 03/20/24 00:00 Analyzed: 03/20/24 15:45 | | | | | | | |
| Chloromethane | 330.6 | 10.0 | ug/L | 306 | ND | 108 | 50-155 | 3.24 | 19 | |
| Vinyl Chloride | 297.0 | 10.0 | ug/L | 302 | ND | 98.3 | 64-148 | 4.25 | 24 | |
| Bromomethane | 362.4 | 10.0 | ug/L | 288 | ND | 126 | 50-159 | 15.6 | 17 | |
| Chloroethane | 325.9 | 10.0 | ug/L | 316 | ND | 103 | 65-144 | 3.53 | 28 | |
| 1,1-Dichloroethylene | 542.9 | 10.0 | ug/L | 500 | ND | 109 | 78-139 | 5.12 | 20 | |
| Methylene Chloride | 461.4 | 50.0 | ug/L | 500 | ND | 92.3 | 65-144 | 3.41 | 16 | |
| trans-1,2-Dichloroethylene | 497.2 | 10.0 | ug/L | 500 | ND | 99.4 | 67-142 | 5.61 | 18 | |
| 1,1-Dichloroethane | 489.3 | 10.0 | ug/L | 500 | ND | 97.9 | 71-133 | 4.73 | 16 | |
| cis-1,2-Dichloroethylene | 507.1 | 10.0 | ug/L | 495 | ND | 102 | 76-142 | 4.70 | 17 | |
| 2-Butanone (MEK) | 985.5 | 100 | ug/L | 1030 | ND | 95.4 | 48-169 | 2.38 | 17 | |
| Chloroform | 487.7 | 10.0 | ug/L | 500 | ND | 97.5 | 75-133 | 3.70 | 16 | |
| 1,1,1-Trichloroethane | 456.5 | 10.0 | ug/L | 500 | ND | 91.3 | 66-120 | 4.41 | 15 | |

| Determination of Volatile Organic Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1175 - EPA 5030B - EPA 624** | | | | | | | | | | |
| **Matrix Spike Dup (1HC1175-MSD1)** | **Source: 1HC1212-01** | | Prepared: 03/20/24 00:00 Analyzed: 03/20/24 15:45 | | | | | | | |
| Carbon Tetrachloride | 505.6 | 10.0 | ug/L | 500 | ND | 101 | 67-132 | 3.48 | 15 | |
| Benzene | 476.1 | 10.0 | ug/L | 500 | ND | 95.2 | 79-128 | 5.06 | 12 | |
| 1,2-Dichloroethane | 464.4 | 10.0 | ug/L | 500 | ND | 92.9 | 74-124 | 1.71 | 12 | |
| Trichloroethylene | 476.5 | 10.0 | ug/L | 500 | ND | 95.3 | 82-122 | 4.87 | 13 | |
| 1,2-Dichloropropane | 480.7 | 10.0 | ug/L | 500 | ND | 96.1 | 80-126 | 2.75 | 10 | |
| Dibromomethane | 512.4 | 10.0 | ug/L | 500 | ND | 102 | 62-141 | 2.43 | 11 | |
| Bromodichloromethane | 461.9 | 10.0 | ug/L | 500 | ND | 92.4 | 77-119 | 2.94 | 10 | |
| 2-Chloroethylvinyl ether | <100 | 100 | ug/L | 1030 | ND | 5.12 | 10-157 | 43.5 | 30 | QM-05 |
| cis-1,3-Dichloropropene | 464.9 | 10.0 | ug/L | 503 | ND | 92.4 | 69-120 | 3.13 | 10 | |
| Toluene | 479.2 | 10.0 | ug/L | 500 | ND | 95.8 | 80-125 | 4.51 | 12 | |
| trans-1,3-Dichloropropene | 458.3 | 10.0 | ug/L | 504 | ND | 90.9 | 70-122 | 3.98 | 10 | |
| 1,1,2-Trichloroethane | 479.4 | 10.0 | ug/L | 500 | ND | 95.9 | 73-127 | 2.29 | 10 | |
| Tetrachloroethylene | 469.0 | 10.0 | ug/L | 500 | ND | 93.8 | 70-122 | 3.89 | 15 | |
| Chlorobenzene | 447.9 | 10.0 | ug/L | 500 | ND | 89.6 | 81-114 | 3.53 | 12 | |
| Ethylbenzene | 459.5 | 10.0 | ug/L | 500 | ND | 91.9 | 79-113 | 3.25 | 13 | |
| Xylenes, total | 1385 | 20.0 | ug/L | 1500 | ND | 92.3 | 79-114 | 2.81 | 12 | |
| Bromoform | 500.2 | 10.0 | ug/L | 500 | ND | 100 | 66-126 | 0.0400 | 16 | |
| 1,1,2,2-Tetrachloroethane | 460.3 | 10.0 | ug/L | 498 | ND | 92.3 | 56-132 | 2.09 | 29 | |
| 1,3-Dichlorobenzene | 451.4 | 10.0 | ug/L | 500 | ND | 90.3 | 69-125 | 4.97 | 18 | |
| 1,4-Dichlorobenzene | 463.7 | 10.0 | ug/L | 500 | ND | 92.7 | 73-119 | 3.99 | 21 | |
| 1,2-Dichlorobenzene | 458.2 | 10.0 | ug/L | 500 | ND | 91.6 | 71-117 | 3.62 | 23 | |
| *Surrogate: Dibromofluoromethane* | *525* | | ug/L | *502* | | *105* | *79-129* | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *513* | | ug/L | *501* | | *103* | *66-134* | | | |
| *Surrogate: Toluene-d8* | *510* | | ug/L | *504* | | *101* | *91-113* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *503* | | ug/L | *501* | | *100* | *83-112* | | | |

| Determination of Base/Neutral/Acid Extractable Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1348 - EPA 625 BNA - EPA 625** | | | | | | | | | | |
| **Blank (1HC1348-BLK1)** | | | Prepared: 03/25/24 12:17 Analyzed: 03/29/24 16:48 | | | | | | | |
| N-Nitrosodimethylamine | <10 | 10 | ug/L | | | | | | | |
| Phenol | <10 | 10 | ug/L | | | | | | | |
| Aniline | <10 | 10 | ug/L | | | | | | | |
| Bis(2-Chloroethyl) Ether | <10 | 10 | ug/L | | | | | | | |
| 2-Chlorophenol | <10 | 10 | ug/L | | | | | | | |
| 1,3-Dichlorobenzene | <10 | 10 | ug/L | | | | | | | |
| 1,4-Dichlorobenzene | <10 | 10 | ug/L | | | | | | | |
| Benzyl Alcohol | <10 | 10 | ug/L | | | | | | | |
| 1,2-Dichlorobenzene | <10 | 10 | ug/L | | | | | | | |
| 2-Methylphenol (o-Cresol) | <10 | 10 | ug/L | | | | | | | |

| Determination of Base/Neutral/Acid Extractable Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1348 - EPA 625 BNA - EPA 625** | | | | | | | | | | |
| **Blank (1HC1348-BLK1)** | | | | Prepared: 03/25/24 12:17 Analyzed: 03/29/24 16:48 | | | | | | |
| Bis[2-Chloroisopropyl]ether | <10 | 10 | ug/L | | | | | | | |
| n-Nitroso-di-n-propylamine | <10 | 10 | ug/L | | | | | | | |
| (3 & 4)-Methylphenol | <10 | 10 | ug/L | | | | | | | |
| Hexachloroethane | <10 | 10 | ug/L | | | | | | | |
| Nitrobenzene | <10 | 10 | ug/L | | | | | | | |
| Isophorone | <10 | 10 | ug/L | | | | | | | |
| 2-Nitrophenol | <10 | 10 | ug/L | | | | | | | |
| 2,4-Dimethylphenol | <10 | 10 | ug/L | | | | | | | |
| Bis (2-Chloroethoxy) Methane | <10 | 10 | ug/L | | | | | | | |
| 2,4-Dichlorophenol | <10 | 10 | ug/L | | | | | | | |
| 1,2,4-Trichlorobenzene | <10 | 10 | ug/L | | | | | | | |
| Naphthalene | <10 | 10 | ug/L | | | | | | | |
| 4-Chloroaniline | <10 | 10 | ug/L | | | | | | | |
| Hexachlorobutadiene | <10 | 10 | ug/L | | | | | | | |
| 4-Chloro-3-methylphenol | <10 | 10 | ug/L | | | | | | | |
| 2-Methylnaphthalene | <10 | 10 | ug/L | | | | | | | |
| Hexachlorocyclopentadiene | <20 | 20 | ug/L | | | | | | | |
| 2,4,6-Trichlorophenol | <10 | 10 | ug/L | | | | | | | |
| 2,4,5-Trichlorophenol | <50 | 50 | ug/L | | | | | | | |
| 2-Chloronaphthalene | <10 | 10 | ug/L | | | | | | | |
| 2-Nitroaniline | <50 | 50 | ug/L | | | | | | | |
| Dimethylphthalate | <10 | 10 | ug/L | | | | | | | |
| Acenaphthylene | <10 | 10 | ug/L | | | | | | | |
| 2,6-Dinitrotoluene | <10 | 10 | ug/L | | | | | | | |
| 3-Nitroaniline | <10 | 10 | ug/L | | | | | | | |
| Acenaphthene | <10 | 10 | ug/L | | | | | | | |
| 2,4-Dinitrophenol | <20 | 20 | ug/L | | | | | | | |
| Dibenzofuran | <10 | 10 | ug/L | | | | | | | |
| 2,4-Dinitrotoluene | <10 | 10 | ug/L | | | | | | | |
| 4-Nitrophenol | <10 | 10 | ug/L | | | | | | | |
| Diethyl Phthalate | <10 | 10 | ug/L | | | | | | | |
| Fluorene | <10 | 10 | ug/L | | | | | | | |
| 4-Chlorophenyl Phenyl Ether | <10 | 10 | ug/L | | | | | | | |
| 4-Nitroaniline | <20 | 20 | ug/L | | | | | | | |
| 4,6-Dinitro-2-methylphenol | <20 | 20 | ug/L | | | | | | | |
| N-Nitrosodiphenylamine | <10 | 10 | ug/L | | | | | | | |
| Azobenzene | <10 | 10 | ug/L | | | | | | | |
| 4-Bromophenyl Phenyl Ether | <10 | 10 | ug/L | | | | | | | |
| Hexachlorobenzene | <10 | 10 | ug/L | | | | | | | |
| Pentachlorophenol | <20 | 20 | ug/L | | | | | | | |
| Phenanthrene | <10 | 10 | ug/L | | | | | | | |
| Anthracene | <10 | 10 | ug/L | | | | | | | |

| Determination of Base/Neutral/Acid Extractable Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1348 - EPA 625 BNA - EPA 625** | | | | | | | | | | |
| **Blank (1HC1348-BLK1)** | | | Prepared: 03/25/24 12:17 Analyzed: 03/29/24 16:48 | | | | | | | |
| Di-n-butyl Phthalate | <10 | 10 | ug/L | | | | | | | |
| Fluoranthene | <10 | 10 | ug/L | | | | | | | |
| Benzidine | <50 | 50 | ug/L | | | | | | | |
| Pyrene | <10 | 10 | ug/L | | | | | | | |
| Butyl Benzyl Phthalate | <10 | 10 | ug/L | | | | | | | |
| Benzo(a)anthracene | <10 | 10 | ug/L | | | | | | | |
| Chrysene | <10 | 10 | ug/L | | | | | | | |
| Bis(2-Ethylhexyl) Phthalate | <10 | 10 | ug/L | | | | | | | |
| Di-n-octyl Phthalate | <10 | 10 | ug/L | | | | | | | |
| Indeno(1,2,3-cd)Pyrene | <10 | 10 | ug/L | | | | | | | |
| 3,3´-Dichlorobenzidine | <20 | 20 | ug/L | | | | | | | |
| Benzo(b)Fluoranthene | <10 | 10 | ug/L | | | | | | | |
| Benzo(k)Fluoranthene | <10 | 10 | ug/L | | | | | | | |
| Benzo(a)Pyrene | <10 | 10 | ug/L | | | | | | | |
| Dibenzo(a,h)anthracene | <10 | 10 | ug/L | | | | | | | |
| Benzo(g,h,i)perylene | <10 | 10 | ug/L | | | | | | | |
| *Surrogate: 2-Fluorophenol* | *20.2* | | ug/L | *29.6* | | *68.3* | *19-139* | | | |
| *Surrogate: Phenol-d6* | *21.2* | | ug/L | *30.5* | | *69.4* | *14-154* | | | |
| *Surrogate: Nitrobenzene-d5* | *20.9* | | ug/L | *30.0* | | *69.6* | *17-146* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *19.7* | | ug/L | *28.8* | | *68.4* | *18-122* | | | |
| *Surrogate: 2,4,6-Tribromophenol* | *27.2* | | ug/L | *29.7* | | *91.3* | *21-151* | | | |
| *Surrogate: Terphenyl-dl4* | *27.0* | | ug/L | *28.8* | | *93.8* | *27-131* | | | |
| **LCS (1HC1348-BS1)** | | | Prepared: 03/25/24 12:17 Analyzed: 03/29/24 17:13 | | | | | | | |
| N-Nitrosodimethylamine | 15.3 | 10 | ug/L | 25.0 | | 61.2 | 39-127 | | | |
| Phenol | 18.7 | 10 | ug/L | 25.0 | | 74.7 | 42-118 | | | |
| Aniline | <10 | 10 | ug/L | 25.0 | | 24.5 | 10-115 | | | |
| Bis(2-Chloroethyl) Ether | 12.4 | 10 | ug/L | 25.0 | | 49.7 | 35-150 | | | |
| 2-Chlorophenol | 19.3 | 10 | ug/L | 25.0 | | 77.4 | 51-117 | | | |
| 1,3-Dichlorobenzene | 12.3 | 10 | ug/L | 25.0 | | 49.1 | 27-91.3 | | | |
| 1,4-Dichlorobenzene | 12.6 | 10 | ug/L | 25.0 | | 50.4 | 28-92.6 | | | |
| Benzyl Alcohol | 17.7 | 10 | ug/L | 25.0 | | 70.8 | 22-147 | | | |
| 1,2-Dichlorobenzene | 13.2 | 10 | ug/L | 25.0 | | 52.7 | 32-94.8 | | | |
| 2-Methylphenol (o-Cresol) | 19.5 | 10 | ug/L | 25.0 | | 78.0 | 50-138 | | | |
| Bis[2-Chloroisopropyl]ether | 18.1 | 10 | ug/L | 25.0 | | 72.4 | 40-125 | | | |
| n-Nitroso-di-n-propylamine | 16.8 | 10 | ug/L | 25.0 | | 67.4 | 47-136 | | | |
| (3 & 4)-Methylphenol | 19.3 | 10 | ug/L | 25.0 | | 77.1 | 56-130 | | | |
| Hexachloroethane | <10 | 10 | ug/L | 25.0 | | 32.4 | 13-110 | | | |
| Nitrobenzene | 19.4 | 10 | ug/L | 25.0 | | 77.4 | 46-133 | | | |
| Isophorone | 19.3 | 10 | ug/L | 25.0 | | 77.1 | 48-130 | | | |
| 2-Nitrophenol | 21.3 | 10 | ug/L | 25.0 | | 85.3 | 54-116 | | | |
| 2,4-Dimethylphenol | 22.2 | 10 | ug/L | 25.0 | | 88.8 | 47-121 | | | |
| Bis (2-Chloroethoxy) Methane | <10 | 10 | ug/L | 25.0 | | 34.6 | 25-110 | | | |

| Determination of Base/Neutral/Acid Extractable Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1348 - EPA 625 BNA - EPA 625** | | | | | | | | | | |
| **LCS (1HC1348-BS1)** | | | | Prepared: 03/25/24 12:17 Analyzed: 03/29/24 17:13 | | | | | | |
| 2,4-Dichlorophenol | 22.6 | 10 | ug/L | 25.0 | | 90.2 | 50-118 | | | |
| 1,2,4-Trichlorobenzene | 11.1 | 10 | ug/L | 25.0 | | 44.4 | 27-95.5 | | | |
| Naphthalene | 14.8 | 10 | ug/L | 25.0 | | 59.1 | 42-107 | | | |
| 4-Chloroaniline | <10 | 10 | ug/L | 25.0 | | | 10-124 | | | QS-03 |
| Hexachlorobutadiene | <10 | 10 | ug/L | 25.0 | | 19.7 | 10-110 | | | |
| 4-Chloro-3-methylphenol | 22.9 | 10 | ug/L | 25.0 | | 91.5 | 54-138 | | | |
| 2-Methylnaphthalene | 13.4 | 10 | ug/L | 25.0 | | 53.5 | 49-110 | | | |
| 2,4,6-Trichlorophenol | 23.3 | 10 | ug/L | 25.0 | | 93.4 | 46-127 | | | |
| 2,4,5-Trichlorophenol | <50 | 50 | ug/L | 25.0 | | 93.0 | 62-119 | | | |
| 2-Chloronaphthalene | 12.2 | 10 | ug/L | 25.0 | | 48.9 | 38-118 | | | |
| 2-Nitroaniline | <50 | 50 | ug/L | 25.0 | | 86.8 | 33-143 | | | |
| Dimethylphthalate | 22.0 | 10 | ug/L | 25.0 | | 88.2 | 58-125 | | | |
| Acenaphthylene | 14.7 | 10 | ug/L | 25.0 | | 58.9 | 41-116 | | | |
| 2,6-Dinitrotoluene | 22.3 | 10 | ug/L | 25.0 | | 89.3 | 58-126 | | | |
| 3-Nitroaniline | <10 | 10 | ug/L | 25.0 | | | 10-149 | | | QS-03 |
| Acenaphthene | 16.3 | 10 | ug/L | 25.0 | | 65.3 | 45-117 | | | |
| 2,4-Dinitrophenol | 20.9 | 20 | ug/L | 25.0 | | 83.6 | 21-138 | | | |
| Dibenzofuran | 17.7 | 10 | ug/L | 25.0 | | 70.8 | 51-126 | | | |
| 2,4-Dinitrotoluene | 20.3 | 10 | ug/L | 25.0 | | 81.2 | 52-134 | | | |
| 4-Nitrophenol | 22.2 | 10 | ug/L | 25.0 | | 88.9 | 41-149 | | | |
| Diethyl Phthalate | 22.2 | 10 | ug/L | 25.0 | | 88.7 | 53-132 | | | |
| Fluorene | 18.8 | 10 | ug/L | 25.0 | | 75.2 | 47-126 | | | |
| 4-Chlorophenyl Phenyl Ether | 17.9 | 10 | ug/L | 25.0 | | 71.4 | 47-124 | | | |
| 4-Nitroaniline | <20 | 20 | ug/L | 25.0 | | 34.6 | 10-126 | | | |
| 4,6-Dinitro-2-methylphenol | 20.3 | 20 | ug/L | 25.0 | | 81.2 | 50-139 | | | |
| N-Nitrosodiphenylamine | 19.3 | 10 | ug/L | 25.0 | | 77.2 | 29-129 | | | |
| Azobenzene | 17.2 | 10 | ug/L | 25.0 | | 69.0 | 53-115 | | | |
| 4-Bromophenyl Phenyl Ether | 19.9 | 10 | ug/L | 25.0 | | 79.4 | 48-125 | | | |
| Hexachlorobenzene | 20.1 | 10 | ug/L | 25.0 | | 80.3 | 29-137 | | | |
| Pentachlorophenol | 20.0 | 20 | ug/L | 25.0 | | 79.8 | 15-154 | | | |
| Phenanthrene | 20.2 | 10 | ug/L | 25.0 | | 80.7 | 45-136 | | | |
| Anthracene | 20.2 | 10 | ug/L | 25.0 | | 80.8 | 43-135 | | | |
| Di-n-butyl Phthalate | 21.8 | 10 | ug/L | 25.0 | | 87.0 | 42-153 | | | |
| Fluoranthene | 21.5 | 10 | ug/L | 25.0 | | 86.0 | 42-143 | | | |
| Pyrene | 20.8 | 10 | ug/L | 25.0 | | 83.1 | 40-146 | | | |
| Butyl Benzyl Phthalate | 20.6 | 10 | ug/L | 25.0 | | 82.5 | 40-151 | | | |
| Benzo(a)anthracene | 20.5 | 10 | ug/L | 25.0 | | 82.1 | 48-136 | | | |
| Chrysene | 21.1 | 10 | ug/L | 25.0 | | 84.3 | 50-136 | | | |
| Bis(2-Ethylhexyl) Phthalate | 23.9 | 10 | ug/L | 25.0 | | 95.4 | 34-180 | | | |
| Di-n-octyl Phthalate | 22.4 | 10 | ug/L | 25.0 | | 89.8 | 40-165 | | | |
| Indeno(1,2,3-cd)Pyrene | 18.6 | 10 | ug/L | 25.0 | | 74.2 | 39-152 | | | |
| Benzo(b)Fluoranthene | 20.6 | 10 | ug/L | 25.0 | | 82.4 | 52-140 | | | |

| Determination of Base/Neutral/Acid Extractable Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1348 - EPA 625 BNA - EPA 625** | | | | | | | | | | |
| **LCS (1HC1348-BS1)** | | | | Prepared: 03/25/24 12:17 Analyzed: 03/29/24 17:13 | | | | | | |
| Benzo(k)Fluoranthene | 21.8 | 10 | ug/L | 25.0 | | 87.2 | 47-147 | | | |
| Benzo(a)Pyrene | 20.6 | 10 | ug/L | 25.0 | | 82.5 | 38-142 | | | |
| Dibenzo(a,h)anthracene | 17.5 | 10 | ug/L | 25.0 | | 69.8 | 37-153 | | | |
| Benzo(g,h,i)perylene | 17.6 | 10 | ug/L | 25.0 | | 70.6 | 39-157 | | | |
| *Surrogate: 2-Fluorophenol* | *21.5* | | ug/L | *29.6* | | *72.7* | *19-139* | | | |
| *Surrogate: Phenol-d6* | *22.1* | | ug/L | *30.5* | | *72.5* | *14-154* | | | |
| *Surrogate: Nitrobenzene-d5* | *24.3* | | ug/L | *30.0* | | *80.9* | *17-146* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *23.0* | | ug/L | *28.8* | | *79.8* | *18-122* | | | |
| *Surrogate: 2,4,6-Tribromophenol* | *29.5* | | ug/L | *29.7* | | *99.2* | *21-151* | | | |
| *Surrogate: Terphenyl-dl4* | *27.3* | | ug/L | *28.8* | | *94.6* | *27-131* | | | |
| **LCS Dup (1HC1348-BSD1)** | | | | Prepared: 03/25/24 12:17 Analyzed: 03/29/24 17:37 | | | | | | |
| N-Nitrosodimethylamine | 15.6 | 10 | ug/L | 25.0 | | 62.3 | 39-127 | 1.75 | 30 | |
| Phenol | 18.0 | 10 | ug/L | 25.0 | | 72.1 | 42-118 | 3.54 | 30 | |
| Aniline | 12.7 | 10 | ug/L | 25.0 | | 50.7 | 10-115 | 69.7 | 30 | QR-02 |
| Bis(2-Chloroethyl) Ether | 12.6 | 10 | ug/L | 25.0 | | 50.6 | 35-150 | 1.76 | 30 | |
| 2-Chlorophenol | 19.6 | 10 | ug/L | 25.0 | | 78.5 | 51-117 | 1.49 | 27 | |
| 1,3-Dichlorobenzene | 13.3 | 10 | ug/L | 25.0 | | 53.3 | 27-91.3 | 8.20 | 30 | |
| 1,4-Dichlorobenzene | 13.6 | 10 | ug/L | 25.0 | | 54.5 | 28-92.6 | 7.78 | 30 | |
| Benzyl Alcohol | 17.7 | 10 | ug/L | 25.0 | | 71.0 | 22-147 | 0.226 | 30 | |
| 1,2-Dichlorobenzene | 14.3 | 10 | ug/L | 25.0 | | 57.0 | 32-94.8 | 7.87 | 30 | |
| 2-Methylphenol (o-Cresol) | 19.9 | 10 | ug/L | 25.0 | | 79.4 | 50-138 | 1.83 | 24 | |
| Bis[2-Chloroisopropyl]ether | 19.0 | 10 | ug/L | 25.0 | | 76.0 | 40-125 | 4.80 | 26 | |
| n-Nitroso-di-n-propylamine | 17.2 | 10 | ug/L | 25.0 | | 68.9 | 47-136 | 2.17 | 29 | |
| (3 & 4)-Methylphenol | 20.1 | 10 | ug/L | 25.0 | | 80.2 | 56-130 | 4.02 | 26 | |
| Hexachloroethane | <10 | 10 | ug/L | 25.0 | | 32.4 | 13-110 | 0.123 | 30 | |
| Nitrobenzene | 18.5 | 10 | ug/L | 25.0 | | 74.2 | 46-133 | 4.33 | 19 | |
| Isophorone | 18.3 | 10 | ug/L | 25.0 | | 73.2 | 48-130 | 5.16 | 23 | |
| 2-Nitrophenol | 21.3 | 10 | ug/L | 25.0 | | 85.0 | 54-116 | 0.329 | 25 | |
| 2,4-Dimethylphenol | 20.7 | 10 | ug/L | 25.0 | | 83.0 | 47-121 | 6.85 | 29 | |
| Bis (2-Chloroethoxy) Methane | 17.6 | 10 | ug/L | 25.0 | | 70.4 | 25-110 | 68.2 | 30 | QR-02 |
| 2,4-Dichlorophenol | 21.4 | 10 | ug/L | 25.0 | | 85.5 | 50-118 | 5.33 | 21 | |
| 1,2,4-Trichlorobenzene | 10.3 | 10 | ug/L | 25.0 | | 41.0 | 27-95.5 | 7.87 | 30 | |
| Naphthalene | 14.7 | 10 | ug/L | 25.0 | | 58.9 | 42-107 | 0.271 | 26 | |
| 4-Chloroaniline | 12.0 | 10 | ug/L | 25.0 | | 47.8 | 10-124 | 200 | 30 | QR-04 |
| Hexachlorobutadiene | <10 | 10 | ug/L | 25.0 | | 17.8 | 10-110 | 10.2 | 30 | |
| 4-Chloro-3-methylphenol | 22.0 | 10 | ug/L | 25.0 | | 87.8 | 54-138 | 4.15 | 12 | |
| 2-Methylnaphthalene | 12.6 | 10 | ug/L | 25.0 | | 50.6 | 49-110 | 5.61 | 25 | |
| 2,4,6-Trichlorophenol | 25.6 | 10 | ug/L | 25.0 | | 102 | 46-127 | 9.04 | 21 | |
| 2,4,5-Trichlorophenol | <50 | 50 | ug/L | 25.0 | | 102 | 62-119 | 9.62 | 15 | |
| 2-Chloronaphthalene | 13.3 | 10 | ug/L | 25.0 | | 53.0 | 38-118 | 8.08 | 24 | |
| 2-Nitroaniline | <50 | 50 | ug/L | 25.0 | | 96.7 | 33-143 | 10.7 | 30 | |
| Dimethylphthalate | 24.4 | 10 | ug/L | 25.0 | | 97.7 | 58-125 | 10.2 | 20 | |

| Determination of Base/Neutral/Acid Extractable Compounds | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1348 - EPA 625 BNA - EPA 625** | | | | | | | | | | |
| **LCS Dup (1HC1348-BSD1)** | | | Prepared: 03/25/24 12:17 Analyzed: 03/29/24 17:37 | | | | | | | |
| Acenaphthylene | 18.2 | 10 | ug/L | 25.0 | | 72.9 | 41-116 | 21.3 | 30 | |
| 2,6-Dinitrotoluene | 24.1 | 10 | ug/L | 25.0 | | 96.5 | 58-126 | 7.75 | 20 | |
| 3-Nitroaniline | 21.7 | 10 | ug/L | 25.0 | | 87.0 | 10-149 | 200 | 30 | QR-04 |
| Acenaphthene | 18.1 | 10 | ug/L | 25.0 | | 72.6 | 45-117 | 10.5 | 27 | |
| 2,4-Dinitrophenol | 23.2 | 20 | ug/L | 25.0 | | 92.7 | 21-138 | 10.3 | 22 | |
| Dibenzofuran | 19.2 | 10 | ug/L | 25.0 | | 76.8 | 51-126 | 8.13 | 15 | |
| 2,4-Dinitrotoluene | 23.0 | 10 | ug/L | 25.0 | | 92.1 | 52-134 | 12.6 | 22 | |
| 4-Nitrophenol | 24.0 | 10 | ug/L | 25.0 | | 96.2 | 41-149 | 7.91 | 28 | |
| Diethyl Phthalate | 25.1 | 10 | ug/L | 25.0 | | 100 | 53-132 | 12.2 | 22 | |
| Fluorene | 20.5 | 10 | ug/L | 25.0 | | 81.8 | 47-126 | 8.40 | 27 | |
| 4-Chlorophenyl Phenyl Ether | 19.9 | 10 | ug/L | 25.0 | | 79.6 | 47-124 | 10.8 | 20 | |
| 4-Nitroaniline | 21.2 | 20 | ug/L | 25.0 | | 84.6 | 10-126 | 84.0 | 25 | QR-02 |
| 4,6-Dinitro-2-methylphenol | 22.0 | 20 | ug/L | 25.0 | | 87.9 | 50-139 | 7.95 | 25 | |
| N-Nitrosodiphenylamine | 23.5 | 10 | ug/L | 25.0 | | 94.2 | 29-129 | 19.8 | 30 | |
| Azobenzene | 22.3 | 10 | ug/L | 25.0 | | 89.2 | 53-115 | 25.5 | 25 | QR-02 |
| 4-Bromophenyl Phenyl Ether | 23.2 | 10 | ug/L | 25.0 | | 92.9 | 48-125 | 15.6 | 18 | |
| Hexachlorobenzene | 23.5 | 10 | ug/L | 25.0 | | 94.2 | 29-137 | 15.9 | 30 | |
| Pentachlorophenol | 22.2 | 20 | ug/L | 25.0 | | 88.6 | 15-154 | 10.4 | 29 | |
| Phenanthrene | 23.4 | 10 | ug/L | 25.0 | | 93.5 | 45-136 | 14.6 | 27 | |
| Anthracene | 22.9 | 10 | ug/L | 25.0 | | 91.5 | 43-135 | 12.4 | 28 | |
| Di-n-butyl Phthalate | 24.8 | 10 | ug/L | 25.0 | | 99.4 | 42-153 | 13.2 | 29 | |
| Fluoranthene | 24.3 | 10 | ug/L | 25.0 | | 97.2 | 42-143 | 12.2 | 30 | |
| Pyrene | 24.8 | 10 | ug/L | 25.0 | | 99.2 | 40-146 | 17.7 | 25 | |
| Butyl Benzyl Phthalate | 24.4 | 10 | ug/L | 25.0 | | 97.8 | 40-151 | 16.9 | 29 | |
| Benzo(a)anthracene | 23.8 | 10 | ug/L | 25.0 | | 95.1 | 48-136 | 14.7 | 30 | |
| Chrysene | 24.1 | 10 | ug/L | 25.0 | | 96.4 | 50-136 | 13.4 | 30 | |
| Bis(2-Ethylhexyl) Phthalate | 29.4 | 10 | ug/L | 25.0 | | 118 | 34-180 | 20.8 | 30 | |
| Di-n-octyl Phthalate | 26.0 | 10 | ug/L | 25.0 | | 104 | 40-165 | 14.8 | 30 | |
| Indeno(1,2,3-cd)Pyrene | 21.4 | 10 | ug/L | 25.0 | | 85.6 | 39-152 | 14.3 | 30 | |
| Benzo(b)Fluoranthene | 23.5 | 10 | ug/L | 25.0 | | 93.9 | 52-140 | 13.1 | 30 | |
| Benzo(k)Fluoranthene | 26.0 | 10 | ug/L | 25.0 | | 104 | 47-147 | 17.6 | 30 | |
| Benzo(a)Pyrene | 25.0 | 10 | ug/L | 25.0 | | 100 | 38-142 | 19.2 | 30 | |
| Dibenzo(a,h)anthracene | 21.4 | 10 | ug/L | 25.0 | | 85.6 | 37-153 | 20.2 | 30 | |
| Benzo(g,h,i)perylene | 20.4 | 10 | ug/L | 25.0 | | 81.4 | 39-157 | 14.3 | 30 | |
| *Surrogate: 2-Fluorophenol* | *20.2* | | ug/L | *29.6* | | *68.2* | *19-139* | | | |
| *Surrogate: Phenol-d6* | *21.5* | | ug/L | *30.5* | | *70.6* | *14-154* | | | |
| *Surrogate: Nitrobenzene-d5* | *21.9* | | ug/L | *30.0* | | *72.8* | *17-146* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *23.7* | | ug/L | *28.8* | | *82.2* | *18-122* | | | |
| *Surrogate: 2,4,6-Tribromophenol* | *30.6* | | ug/L | *29.7* | | *103* | *21-151* | | | |
| *Surrogate: Terphenyl-dl4* | *30.2* | | ug/L | *28.8* | | *105* | *27-131* | | | |

| Determination of Organochlorine Insecticides & PCBs | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1238 - 3510C NP/OC Sep Fnl - EPA 608** | | | | | | | | | | |
| **Blank (1HC1238-BLK1)** | | | | Prepared: 03/21/24 17:11 Analyzed: 04/01/24 12:09 | | | | | | |
| 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 | | | | | | | |
| Arochlor 1016 | <0.20 | 0.20 | ug/L | | | | | | | |
| Arochlor 1221 | <0.20 | 0.20 | ug/L | | | | | | | |
| Arochlor 1232 | <0.20 | 0.20 | ug/L | | | | | | | |
| Arochlor 1242 | <0.20 | 0.20 | ug/L | | | | | | | |
| Arochlor 1248 | <0.20 | 0.20 | ug/L | | | | | | | |
| Arochlor 1254 | <0.20 | 0.20 | ug/L | | | | | | | |
| Arochlor 1260 | <0.20 | 0.20 | ug/L | | | | | | | |
| *Surrogate: Decachlorobiphenyl* | *0.370* | | ug/L | *0.600* | | *61.7* | *19-120* | | | |
| *Surrogate: Tetrachloro-m-xylene* | *0.444* | | ug/L | *0.600* | | *74.0* | *30-119* | | | |
| **LCS (1HC1238-BS1)** | | | | Prepared: 03/21/24 17:11 Analyzed: 04/01/24 12:23 | | | | | | |
| Alpha-BHC | 0.232 | 0.05 | ug/L | 0.250 | | 92.7 | 32-136 | | | |
| Gamma-BHC [Lindane] | 0.229 | 0.05 | ug/L | 0.250 | | 91.6 | 37-127 | | | |
| Beta-BHC | 0.224 | 0.05 | ug/L | 0.250 | | 89.4 | 36-131 | | | |
| Heptachlor | 0.244 | 0.05 | ug/L | 0.250 | | 97.6 | 36-128 | | | |
| Delta-BHC | 0.265 | 0.05 | ug/L | 0.250 | | 106 | 29-147 | | | |
| Aldrin | 0.222 | 0.05 | ug/L | 0.250 | | 88.7 | 41-120 | | | |
| Heptachlor Epoxide | 0.229 | 0.05 | ug/L | 0.250 | | 91.6 | 50-132 | | | |
| Endosulfan I | 0.245 | 0.05 | ug/L | 0.250 | | 98.0 | 50-133 | | | |
| 4,4`-DDE | 0.233 | 0.05 | ug/L | 0.250 | | 93.1 | 46-140 | | | |
| Dieldrin | 0.224 | 0.05 | ug/L | 0.250 | | 89.5 | 41-138 | | | |
| Endrin | 0.326 | 0.05 | ug/L | 0.250 | | 131 | 32-152 | | | |
| 4,4`-DDD | 0.224 | 0.05 | ug/L | 0.250 | | 89.5 | 44-150 | | | |

| Determination of Organochlorine Insecticides & PCBs | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1238 - 3510C NP/OC Sep Fnl - EPA 608** | | | | | | | | | | |
| **LCS (1HC1238-BS1)** | | | Prepared: 03/21/24 17:11 Analyzed: 04/01/24 12:23 | | | | | | | |
| Endosulfan II | 0.236 | 0.05 | ug/L | 0.250 | | 94.2 | 45-141 | | | |
| 4,4`-DDT | 0.260 | 0.05 | ug/L | 0.250 | | 104 | 46-145 | | | |
| Endrin Aldehyde | 0.208 | 0.05 | ug/L | 0.250 | | 83.2 | 33-145 | | | |
| Endosulfan Sulfate | 0.240 | 0.05 | ug/L | 0.250 | | 96.1 | 52-133 | | | |
| Methoxychlor | 0.296 | 0.05 | ug/L | 0.250 | | 118 | 32-161 | | | |
| *Surrogate: Decachlorobiphenyl* | *0.438* | | ug/L | *0.600* | | *73.0* | *19-120* | | | |
| *Surrogate: Tetrachloro-m-xylene* | *0.494* | | ug/L | *0.600* | | *82.3* | *30-119* | | | |
| **LCS Dup (1HC1238-BSD1)** | | | Prepared: 03/21/24 17:11 Analyzed: 04/01/24 12:38 | | | | | | | |
| Alpha-BHC | 0.253 | 0.05 | ug/L | 0.250 | | 101 | 32-136 | 8.78 | 30 | |
| Gamma-BHC [Lindane] | 0.256 | 0.05 | ug/L | 0.250 | | 103 | 37-127 | 11.2 | 30 | |
| Beta-BHC | 0.231 | 0.05 | ug/L | 0.250 | | 92.5 | 36-131 | 3.36 | 30 | |
| Heptachlor | 0.271 | 0.05 | ug/L | 0.250 | | 108 | 36-128 | 10.4 | 30 | |
| Delta-BHC | 0.288 | 0.05 | ug/L | 0.250 | | 115 | 29-147 | 8.33 | 30 | |
| Aldrin | 0.246 | 0.05 | ug/L | 0.250 | | 98.2 | 41-120 | 10.2 | 30 | |
| Heptachlor Epoxide | 0.253 | 0.05 | ug/L | 0.250 | | 101 | 50-132 | 10.1 | 30 | |
| Endosulfan I | 0.273 | 0.05 | ug/L | 0.250 | | 109 | 50-133 | 10.7 | 30 | |
| 4,4`-DDE | 0.262 | 0.05 | ug/L | 0.250 | | 105 | 46-140 | 11.7 | 30 | |
| Dieldrin | 0.246 | 0.05 | ug/L | 0.250 | | 98.4 | 41-138 | 9.55 | 30 | |
| Endrin | 0.362 | 0.05 | ug/L | 0.250 | | 145 | 32-152 | 10.3 | 30 | |
| 4,4`-DDD | 0.247 | 0.05 | ug/L | 0.250 | | 98.9 | 44-150 | 10.1 | 30 | |
| Endosulfan II | 0.256 | 0.05 | ug/L | 0.250 | | 102 | 45-141 | 8.38 | 30 | |
| 4,4`-DDT | 0.293 | 0.05 | ug/L | 0.250 | | 117 | 46-145 | 11.9 | 30 | |
| Endrin Aldehyde | 0.220 | 0.05 | ug/L | 0.250 | | 88.1 | 33-145 | 5.74 | 30 | |
| Endosulfan Sulfate | 0.265 | 0.05 | ug/L | 0.250 | | 106 | 52-133 | 9.86 | 30 | |
| Methoxychlor | 0.329 | 0.05 | ug/L | 0.250 | | 131 | 32-161 | 10.3 | 30 | |
| *Surrogate: Decachlorobiphenyl* | *0.447* | | ug/L | *0.600* | | *74.5* | *19-120* | | | |
| *Surrogate: Tetrachloro-m-xylene* | *0.503* | | ug/L | *0.600* | | *83.9* | *30-119* | | | |

| Determination of Conventional Chemistry Parameters | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1094 - General Prep Micro - SM 5210 B** | | | | | | | | | | |
| **Blank (1HC1094-BLK1)** | | | Prepared & Analyzed: 03/20/24 07:35 | | | | | | | |
| BOD (5 day) | <2 | 2 | mg/L | | | | | | | |
| **Duplicate (1HC1094-DUP1)** | **Source: 1HC1186-01** | | Prepared & Analyzed: 03/20/24 09:49 | | | | | | | |
| BOD (5 day) | 424 | 60 | mg/L | | 363 | | | 15.5 | 29 | |
| **Reference (1HC1094-SRM1)** | | | Prepared & Analyzed: 03/20/24 07:40 | | | | | | | |
| BOD (5 day) | 182 | 100 | mg/L | 198 | | 91.9 | 84.6-115.4 | | | |

| Determination of Conventional Chemistry Parameters | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1167 - Wet Chem Preparation - USGS I-3765-85** | | | | | | | | | | |
| **Blank (1HC1167-BLK1)** | | | | Prepared: 03/21/24 08:30 Analyzed: 03/22/24 10:27 | | | | | | |
| Total Suspended Solids (TSS) | <1 | 1 | mg/L | | | | | | | |
| **LCS (1HC1167-BS1)** | | | | Prepared: 03/21/24 08:30 Analyzed: 03/22/24 10:27 | | | | | | |
| Total Suspended Solids (TSS) | 12.0 | 1 | mg/L | 15.0 | | 80.0 | 74-114 | | | |
| **Duplicate (1HC1167-DUP1)** | | **Source: 1HC1210-01** | | Prepared: 03/21/24 08:30 Analyzed: 03/22/24 10:27 | | | | | | |
| Total Suspended Solids (TSS) | 351 | 1 | mg/L | | 372 | | | 5.96 | 30 | |
| **Batch 1HC1186 - Wet Chem Preparation - EPA 351.2** | | | | | | | | | | |
| **Blank (1HC1186-BLK1)** | | | | Prepared: 03/21/24 10:07 Analyzed: 03/25/24 12:50 | | | | | | |
| Nitrogen, Kjeldahl, total | <2.00 | 2.00 | mg/L | | | | | | | |
| **LCS (1HC1186-BS1)** | | | | Prepared: 03/21/24 10:07 Analyzed: 03/25/24 12:50 | | | | | | |
| Nitrogen, Kjeldahl, total | 19.7 | 2.00 | mg/L | 20.0 | | 98.6 | 90-110 | | | |
| **Matrix Spike (1HC1186-MS1)** | | **Source: 1HC1164-02** | | Prepared: 03/21/24 10:07 Analyzed: 03/25/24 12:52 | | | | | | |
| Nitrogen, Kjeldahl, total | 54.8 | 5.00 | mg/L | 50.0 | 4.38 | 101 | 90-110 | | | |
| **Matrix Spike Dup (1HC1186-MSD1)** | | **Source: 1HC1164-02** | | Prepared: 03/21/24 10:07 Analyzed: 03/25/24 12:53 | | | | | | |
| Nitrogen, Kjeldahl, total | 51.6 | 5.00 | mg/L | 50.0 | 4.38 | 94.5 | 90-110 | 5.90 | 10 | |
| **Batch 1HC1249 - Wet Chem Preparation - USGS I-1750-85** | | | | | | | | | | |
| **Blank (1HC1249-BLK1)** | | | | Prepared: 03/22/24 07:55 Analyzed: 03/22/24 10:30 | | | | | | |
| Total Dissolved Solids (TDS) | <5 | 5 | mg/L | | | | | | | |
| **LCS (1HC1249-BS1)** | | | | Prepared: 03/22/24 07:55 Analyzed: 03/22/24 10:30 | | | | | | |
| Total Dissolved Solids (TDS) | 99 | 5 | mg/L | 100 | | 98.8 | 71-114 | | | |
| **Duplicate (1HC1249-DUP1)** | | **Source: 1HC1428-01** | | Prepared: 03/22/24 07:55 Analyzed: 03/22/24 10:30 | | | | | | |
| Total Dissolved Solids (TDS) | 2560 | 5 | mg/L | | 2710 | | | 5.68 | 30 | |
| **Batch 1HC1269 - Wet Chem Preparation - EPA 1664A** | | | | | | | | | | |
| **Blank (1HC1269-BLK1)** | | | | Prepared: 03/22/24 10:32 Analyzed: 03/26/24 11:00 | | | | | | |
| Oil and Grease | <4 | 4 | mg/L | | | | | | | |
| **LCS (1HC1269-BS1)** | | | | Prepared: 03/22/24 10:32 Analyzed: 03/26/24 11:00 | | | | | | |
| Oil and Grease | 33.7 | 4 | mg/L | 40.0 | | 84.2 | 78-114 | | | |
| **Duplicate (1HC1269-DUP1)** | | **Source: 1HC1464-01** | | Prepared: 03/22/24 10:32 Analyzed: 03/26/24 11:00 | | | | | | |
| Oil and Grease | 14.4 | 4 | mg/L | | 15.0 | | | 4.01 | 18 | |
| **Batch 1HC1602 - General Prep HPLC/IC - TIMBERLINE** | | | | | | | | | | |
| **Blank (1HC1602-BLK1)** | | | | Prepared: 03/28/24 14:45 Analyzed: 03/29/24 13:15 | | | | | | |
| Nitrogen, Ammonia | <0.10 | 0.10 | mg/L | | | | | | | |
| **LCS (1HC1602-BS1)** | | | | Prepared: 03/28/24 14:45 Analyzed: 03/29/24 13:16 | | | | | | |
| Nitrogen, Ammonia | 4.92 | 0.10 | mg/L | 5.00 | | 98.5 | 90-114 | | | |

| Determination of Conventional Chemistry Parameters | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1602 - General Prep HPLC/IC - TIMBERLINE** | | | | | | | | | | |
| **Matrix Spike (1HC1602-MS1)** | | **Source: 1HC1186-02** | Prepared: 03/28/24 14:45 Analyzed: 03/29/24 13:18 | | | | | | | |
| Nitrogen, Ammonia | 39.3 | 0.10 | mg/L | 5.00 | 38.7 | 13.5 | 84-115 | | | QM-15 |
| **Matrix Spike (1HC1602-MS2)** | | **Source: 1HC1201-01** | Prepared: 03/28/24 14:45 Analyzed: 03/29/24 13:59 | | | | | | | |
| Nitrogen, Ammonia | 5.06 | 0.10 | mg/L | 5.00 | ND | 101 | 84-115 | | | |
| **Matrix Spike Dup (1HC1602-MSD1)** | | **Source: 1HC1186-02** | Prepared: 03/28/24 14:45 Analyzed: 03/29/24 13:19 | | | | | | | |
| Nitrogen, Ammonia | 39.1 | 0.10 | mg/L | 5.00 | 38.7 | 9.35 | 84-115 | 0.524 | 20 | QM-15 |
| **Matrix Spike Dup (1HC1602-MSD2)** | | **Source: 1HC1201-01** | Prepared: 03/28/24 14:45 Analyzed: 03/29/24 14:01 | | | | | | | |
| Nitrogen, Ammonia | 5.04 | 0.10 | mg/L | 5.00 | ND | 101 | 84-115 | 0.288 | 20 | |
| **Batch 1HC1664 - TOC/DOC - 5310B** | | | | | | | | | | |
| **Blank (1HC1664-BLK1)** | | | Prepared: 03/27/24 00:00 Analyzed: 03/27/24 10:28 | | | | | | | |
| Total Organic Carbon | <0.50 | 0.50 | mg/L | | | | | | | |
| **LCS (1HC1664-BS1)** | | | Prepared: 03/27/24 00:00 Analyzed: 03/27/24 09:58 | | | | | | | |
| Total Organic Carbon | 5.42 | 0.50 | mg/L | 5.00 | | 108 | 86-120 | | | |
| **LCS Dup (1HC1664-BSD1)** | | | Prepared: 03/27/24 00:00 Analyzed: 03/27/24 10:14 | | | | | | | |
| Total Organic Carbon | 5.36 | 0.50 | mg/L | 5.00 | | 107 | 86-120 | 1.00 | 10 | |
| **Duplicate (1HC1664-DUP1)** | | **Source: 1HC1212-01** | Prepared: 03/27/24 00:00 Analyzed: 03/29/24 15:17 | | | | | | | |
| Total Organic Carbon | 34.20 | 0.50 | mg/L | | 35.49 | | | 3.70 | 20 | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1067 - EPA 200.2 Total ICP-OES (200.7) - 200.7** | | | | | | | | | | |
| **Blank (1HC1067-BLK1)** | | | Prepared: 03/20/24 08:00 Analyzed: 03/20/24 18:04 | | | | | | | |
| Iron, total | <0.100 | 0.100 | mg/L | | | | | | | |
| **LCS (1HC1067-BS1)** | | | Prepared: 03/20/24 08:00 Analyzed: 03/20/24 18:09 | | | | | | | |
| Iron, total | 2.37 | 0.100 | mg/L | 2.20 | | 108 | 85-115 | | | |
| **Matrix Spike (1HC1067-MS1)** | | **Source: 1HC1107-01** | Prepared: 03/20/24 08:00 Analyzed: 03/20/24 18:21 | | | | | | | |
| Iron, total | 2.61 | 0.100 | mg/L | 2.20 | 0.269 | 106 | 70-130 | | | |
| **Matrix Spike Dup (1HC1067-MSD1)** | | **Source: 1HC1107-01** | Prepared: 03/20/24 08:00 Analyzed: 03/20/24 18:27 | | | | | | | |
| Iron, total | 2.41 | 0.100 | mg/L | 2.20 | 0.269 | 97.3 | 70-130 | 7.88 | 20 | |
| **Post Spike (1HC1067-PS1)** | | **Source: 1HC1107-01** | Prepared: 03/20/24 08:00 Analyzed: 03/20/24 18:33 | | | | | | | |
| Iron, total | 9.73 | | mg/L | 8.80 | 0.269 | 108 | 85-115 | | | |
| **Batch 1HC1285 - EPA 7470A Hg Water - 245.1** | | | | | | | | | | |
| **Blank (1HC1285-BLK1)** | | | Prepared: 03/22/24 15:03 Analyzed: 03/26/24 14:00 | | | | | | | |
| Mercury, total | <0.00050 | 0.00050 | mg/L | | | | | | | |
| **LCS (1HC1285-BS1)** | | | Prepared: 03/22/24 15:03 Analyzed: 03/26/24 14:02 | | | | | | | |
| Mercury, total | 0.00214 | 0.00050 | mg/L | 0.00250 | | 85.8 | 85-115 | | | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1285 - EPA 7470A Hg Water - 245.1** | | | | | | | | | | |
| **Matrix Spike (1HC1285-MS1)** | **Source: 1HC1142-01** | | Prepared: 03/22/24 15:03 Analyzed: 03/26/24 14:07 | | | | | | | |
| Mercury, total | 0.00236 | 0.00050 | mg/L | 0.00250 | ND | 94.5 | 70-130 | | | |
| **Matrix Spike Dup (1HC1285-MSD1)** | **Source: 1HC1142-01** | | Prepared: 03/22/24 15:03 Analyzed: 03/26/24 14:09 | | | | | | | |
| Mercury, total | 0.00242 | 0.00050 | mg/L | 0.00250 | ND | 96.8 | 70-130 | 2.47 | 10 | |
| **Batch 1HC1317 - EPA 200.2 Total ICP-MS - EPA 200.8** | | | | | | | | | | |
| **Blank (1HC1317-BLK1)** | | | Prepared: 03/25/24 08:40 Analyzed: 03/25/24 19:22 | | | | | | | |
| Arsenic, total | <0.0020 | 0.0020 | mg/L | | | | | | | |
| Barium, total | <0.0020 | 0.0020 | mg/L | | | | | | | |
| Cadmium, total | <0.0002 | 0.0002 | mg/L | | | | | | | |
| Chromium, total | <0.0008 | 0.0008 | mg/L | | | | | | | |
| Copper, total | <0.0020 | 0.0020 | mg/L | | | | | | | |
| Lead, total | <0.0008 | 0.0008 | mg/L | | | | | | | |
| Nickel, total | <0.0040 | 0.0040 | mg/L | | | | | | | |
| Selenium, total | <0.0040 | 0.0040 | mg/L | | | | | | | |
| Silver, total | <0.0020 | 0.0020 | mg/L | | | | | | | |
| Zinc, total | <0.0200 | 0.0200 | mg/L | | | | | | | |
| **LCS (1HC1317-BS1)** | | | Prepared: 03/25/24 08:40 Analyzed: 03/25/24 19:28 | | | | | | | |
| Arsenic, total | 0.0935 | 0.0020 | mg/L | 0.100 | | 93.5 | 85-115 | | | |
| Barium, total | 0.103 | 0.0020 | mg/L | 0.100 | | 103 | 85-115 | | | |
| Cadmium, total | 0.0948 | 0.0002 | mg/L | 0.100 | | 94.8 | 85-115 | | | |
| Chromium, total | 0.0926 | 0.0008 | mg/L | 0.100 | | 92.6 | 85-115 | | | |
| Copper, total | 0.0958 | 0.0020 | mg/L | 0.100 | | 95.8 | 85-115 | | | |
| Lead, total | 0.0960 | 0.0008 | mg/L | 0.100 | | 96.0 | 85-115 | | | |
| Nickel, total | 0.0920 | 0.0040 | mg/L | 0.100 | | 92.0 | 85-115 | | | |
| Selenium, total | 0.0910 | 0.0040 | mg/L | 0.100 | | 91.0 | 85-115 | | | |
| Silver, total | 0.0971 | 0.0020 | mg/L | 0.100 | | 97.1 | 85-115 | | | |
| Zinc, total | 0.0916 | 0.0200 | mg/L | 0.100 | | 91.6 | 85-115 | | | |
| **Matrix Spike (1HC1317-MS1)** | **Source: 1HC1275-02** | | Prepared: 03/25/24 08:40 Analyzed: 03/25/24 19:59 | | | | | | | |
| Arsenic, total | 0.0980 | 0.0020 | mg/L | 0.100 | 0.0054 | 92.6 | 70-130 | | | |
| Barium, total | 0.123 | 0.0020 | mg/L | 0.100 | 0.0231 | 100 | 70-130 | | | |
| Cadmium, total | 0.0830 | 0.0002 | mg/L | 0.100 | ND | 83.0 | 70-130 | | | |
| Chromium, total | 0.113 | 0.0008 | mg/L | 0.100 | 0.0036 | 110 | 70-130 | | | |
| Copper, total | 0.469 | 0.0020 | mg/L | 0.100 | 0.384 | 85.0 | 70-130 | | | |
| Lead, total | 0.0844 | 0.0008 | mg/L | 0.100 | ND | 84.4 | 70-130 | | | |
| Nickel, total | 0.103 | 0.0040 | mg/L | 0.100 | 0.0165 | 86.8 | 70-130 | | | |
| Selenium, total | 0.0893 | 0.0040 | mg/L | 0.100 | 0.0046 | 84.7 | 70-130 | | | |
| Silver, total | 0.0885 | 0.0020 | mg/L | 0.100 | ND | 88.5 | 70-130 | | | |
| Zinc, total | 0.0994 | 0.0200 | mg/L | 0.100 | ND | 99.4 | 70-130 | | | |
| **Matrix Spike Dup (1HC1317-MSD1)** | **Source: 1HC1275-02** | | Prepared: 03/25/24 08:40 Analyzed: 03/25/24 20:05 | | | | | | | |
| Arsenic, total | 0.100 | 0.0020 | mg/L | 0.100 | 0.0054 | 95.1 | 70-130 | 2.51 | 20 | |
| Barium, total | 0.129 | 0.0020 | mg/L | 0.100 | 0.0231 | 106 | 70-130 | 4.97 | 20 | |
| Cadmium, total | 0.0869 | 0.0002 | mg/L | 0.100 | ND | 86.9 | 70-130 | 4.60 | 20 | |

| Determination of Total Metals | Result | RL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1HC1317 - EPA 200.2 Total ICP-MS - EPA 200.8** | | | | | | | | | | |
| **Matrix Spike Dup (1HC1317-MSD1)** | **Source: 1HC1275-02** | | Prepared: 03/25/24 08:40 Analyzed: 03/25/24 20:05 | | | | | | | |
| Chromium, total | 0.111 | 0.0008 | mg/L | 0.100 | 0.0036 | 107 | 70-130 | 2.27 | 20 | |
| Copper, total | 0.484 | 0.0020 | mg/L | 0.100 | 0.384 | 100 | 70-130 | 3.16 | 20 | |
| Lead, total | 0.0876 | 0.0008 | mg/L | 0.100 | ND | 87.6 | 70-130 | 3.67 | 20 | |
| Nickel, total | 0.107 | 0.0040 | mg/L | 0.100 | 0.0165 | 90.1 | 70-130 | 3.15 | 20 | |
| Selenium, total | 0.0954 | 0.0040 | mg/L | 0.100 | 0.0046 | 90.8 | 70-130 | 6.57 | 20 | |
| Silver, total | 0.0908 | 0.0020 | mg/L | 0.100 | ND | 90.8 | 70-130 | 2.46 | 20 | |
| Zinc, total | 0.103 | 0.0200 | mg/L | 0.100 | ND | 103 | 70-130 | 3.49 | 20 | |
| **Post Spike (1HC1317-PS1)** | **Source: 1HC1275-02** | | Prepared: 03/25/24 08:40 Analyzed: 03/25/24 20:11 | | | | | | | |
| Arsenic, total | 0.0833 | | mg/L | 0.0800 | 0.0053 | 97.5 | 70-130 | | | |
| Barium, total | 0.106 | | mg/L | 0.0800 | 0.0226 | 104 | 70-130 | | | |
| Cadmium, total | 0.0714 | | mg/L | 0.0800 | 0.00002 | 89.2 | 70-130 | | | |
| Chromium, total | 0.0925 | | mg/L | 0.0800 | 0.0035 | 111 | 70-130 | | | |
| Copper, total | 0.480 | | mg/L | 0.0800 | 0.376 | 129 | 70-130 | | | |
| Lead, total | 0.0721 | | mg/L | 0.0800 | 0.0004 | 89.7 | 70-130 | | | |
| Nickel, total | 0.0921 | | mg/L | 0.0800 | 0.0162 | 94.8 | 70-130 | | | |
| Selenium, total | 0.0791 | | mg/L | 0.0800 | 0.0045 | 93.3 | 70-130 | | | |
| Silver, total | 0.0751 | | mg/L | 0.0800 | 0.000004 | 93.9 | 70-130 | | | |
| Zinc, total | 0.0872 | | mg/L | 0.0800 | 0.0161 | 88.9 | 70-130 | | | |

### Definitions

**P-02:** Sample was incorrectly preserved for this analysis.

**QM-05:** The spike recovery and/or RPD was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

**QM-15:** The spike recovery was outside acceptance limits due to dilution required for high analyte concentration and/or matrix interference.

**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.

**QR-04:** The Duplicate RPD for this analyte exceeded acceptance limits.

**QS-03:** The blank spike recovery was below established acceptance limits.

**RL:** Reporting Limit

**RPD:** Relative Percent Difference

### Cooler Receipt Log

**Cooler ID:** Default Cooler Temp: 2.2°C

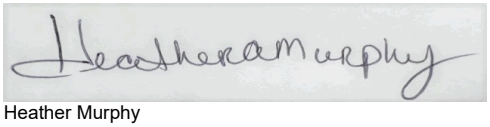
### Cooler Inspection Checklist

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

**Report Comments**

*The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included.* ***The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.***

**Reviewed and Approved By:**



Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
04/02/24 16:44

Appendix H.5 – Leachate Piezometer Elevation Monitoring

| | | | | PAGE COUNTY LANDFILL | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | TABLE H2 - LEACHATE PIEZOMETER MEASUREMENTS - RESURVEYED ELEVATIONS | | | | | | | | | |
| | | | | | | | | | | |
| | LPZ 1 | LPZ 24 | LPZ 25 | LPZ 29 | LPZ 33 | LPZ 36 | LPZ 38 | LPZ 39 | LPZ 41 | LPZ 2 |
| TOC ELV. | 1122.27 | 1168.23 | 1167.80 | 1141.56 | 1166.21 | 1167.91 | 1164.89 | 1120.04 | 1116.07 | 1113.50 |
| Depth | 23.70 | 24.20 | 19.50 | 20.30 | 20.20 | 22.60 | 23.30 | 18.92 | | 11.00 |
| | | 2.00 | | | 5.50 | 5.00 | | | | |
| Year | 10/02 | 2010 | 10/02 | 10/02 | 2010 | 2010 | 10/02 | 10/09 | 9/17 | 7/25 |
| Old TOC Elv. | | | | | | | | 1111.04 | | |
| New Depth | 23.70 | 26.20 | 19.50 | 20.30 | 25.70 | 27.60 | 23.30 | 18.92 | | |
| New TOC Elv. | 1122.27 | 1170.23 | 1167.80 | 1141.56 | 1171.71 | 1172.91 | 1164.89 | 1120.04 | 1117.60 | 1113.50 |
| bottom Elv | 1098.57 | 1144.03 | 1148.30 | 1121.26 | 1146.01 | 1145.31 | 1141.59 | 1101.04 | 1106.00 | 1102.50 |
| | | | | | | | | | | |
| DATE | LEACHATE ELEVATIONS | | | | | | | | | |
| 1/2/2015 | 1099.04 | 1146.99 | 1151.40 | 1124.46 | 1146.52 | 1152.47 | 1143.89 | 1101.34 | | |
| 2/6/2015 | | | | | | | | 1101.32 | | |
| 3/4/2015 | | | | | | | | 1101.30 | | |
| 4/8/2015 | 1101.52 | 1146.32 | 1152.08 | 1124.13 | 1146.52 | 1152.98 | 1143.89 | 1101.29 | | |
| 5/5/2015 | | | | | | | | 1101.30 | | |
| 6/2/2015 | | | | | | | | 1101.28 | | |
| 7/1/2015 | 1100.95 | 1146.30 | 1151.79 | 1124.11 | 1146.52 | 1152.76 | 1143.89 | 1101.47 | | |
| 8/4/2015 | | | | | | | | 1101.65 | | |
| 9/3/2015 | | | | | | | | 1102.52 | | |
| 10/6/2015 | | | | | | | | 1102.27 | | |
| 11/4/2015 | | | | | | | | 1102.02 | | |
| 12/3/2015 | 1103.18 | 1147.03 | 1152.23 | 1124.37 | 1146.39 | 1153.59 | 1144.00 | 1101.69 | | |
| 1/4/2016 | 1103.18 | 1147.03 | 1152.23 | 1124.37 | 1146.39 | 1153.68 | 1144.00 | 1101.69 | | |
| 2/1/2016 | | | | | | | | 1101.64 | | |
| 3/1/2016 | | | | | | | | 1101.55 | | |
| 4/1/2016 | | | | | | | | 1101.64 | | |
| 5/2/2016 | | | | | | | | 1101.44 | | |
| 6/3/2016 | | | | | | | | 1101.32 | | |
| 7/8/2016 | 1101.72 | | 1151.90 | 1123.67 | 1146.64 | 1153.04 | 1144.33 | 1101.34 | | |
| 8/16 | | | | | | | | 1101.36 | | |
| 9/16 | | | | | | | | 1101.54 | | |
| 10/16 | | | | | | | | 1101.43 | 1106.20 | |
| 11/16 | | | | | | | | 1101.72 | 1106.24 | |
| 12/16 | | | | | | | | 1101.83 | 1106.28 | |
| 1/6/2017 | | | | | | | | 1101.84 | 1106.40 | |
| 2/13/2017 | | | | | | | | 1101.74 | 1106.10 | |
| 3/14/2017 | | | | | | | | 1101.79 | 1106.10 | |
| 4/12/2017 | | | | | | | | 1101.69 | 1105.80 | |
| 5/15/2017 | | | | | | | | 1101.59 | 1106.05 | |
| 6/12/2017 | | | | | | | | 1101.59 | 1105.95 | |
| 7/13/2017 | 1102.37 | 1146.73 | 1151.60 | 1124.16 | 1146.81 | 1152.71 | 1144.39 | 1101.54 | 1106.10 | |
| 8/8/2017 | | | | | | | | 1101.54 | 1106.05 | |
| 9/10/2017 | | | | | | | | 1101.64 | 1106.10 | |
| 10/16/2017 | | | | | | | | 1101.59 | 1106.25 | |
| 11/6/2017 | | | | | | | | 1101.64 | 1106.15 | |
| 12/22/2017 | | | | | | | | 1101.69 | 1106.25 | |

| | | | | PAGE COUNTY LANDFILL | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | TABLE H2 - LEACHATE PIEZOMETER MEASUREMENTS - RESURVEYED ELEVATIONS | | | | | | | | | |
| | | | | | | | | | | |
| | LPZ 1 | LPZ 24 | LPZ 25 | LPZ 29 | LPZ 33 | LPZ 36 | LPZ 38 | LPZ 39 | LPZ 41 | LPZ 2 |
| TOC ELV. | 1122.27 | 1168.23 | 1167.80 | 1141.56 | 1166.21 | 1167.91 | 1164.89 | 1120.04 | 1116.07 | 1113.50 |
| Depth | 23.70 | 24.20 | 19.50 | 20.30 | 20.20 | 22.60 | 23.30 | 18.92 | | 11.00 |
| | | 2.00 | | | 5.50 | 5.00 | | | | |
| Year | 10/02 | 2010 | 10/02 | 10/02 | 2010 | 2010 | 10/02 | 10/09 | 9/17 | 7/25 |
| Old TOC Elv. | | | | | | | | 1111.04 | | |
| New Depth | 23.70 | 26.20 | 19.50 | 20.30 | 25.70 | 27.60 | 23.30 | 18.92 | | |
| New TOC Elv. | 1122.27 | 1170.23 | 1167.80 | 1141.56 | 1171.71 | 1172.91 | 1164.89 | 1120.04 | 1117.60 | 1113.50 |
| bottom Elv | 1098.57 | 1144.03 | 1148.30 | 1121.26 | 1146.01 | 1145.31 | 1141.59 | 1101.04 | 1106.00 | 1102.50 |
| | | | | | | | | | | |
| DATE | LEACHATE ELEVATIONS | | | | | | | | | |
| 1/10/2018 | 1102.27 | 1146.63 | 1150.50 | 1125.06 | 1146.71 | 1152.76 | 1144.29 | 1101.64 | 1106.25 | |
| 2/5/2018 | | | | | | | | 1101.74 | 1106.20 | |
| 3/19/2018 | | | | | | | | 1101.64 | 1106.20 | |
| 4/5/2018 | | | | | | | | 1101.64 | 1106.15 | |
| 5/2/2018 | | | | | | | | 1101.59 | 1106.20 | |
| 6/15/2018 | | | | | | | | 1101.64 | 1106.25 | |
| 7/6/2018 | 1102.37 | 1146.63 | 1151.50 | 1124.21 | 1146.71 | 1152.61 | 1144.34 | 1101.64 | 1106.15 | |
| 8/29/2018 | | | | | | | | 1101.64 | 1106.15 | |
| 9/10/2018 | | | | | | | | 1101.59 | 1106.10 | |
| 10/15/2018 | | | | | | | | 1101.54 | 1106.15 | |
| 11/9/2018 | | | | | | | | 1101.59 | 1106.20 | |
| 12/18/2018 | | | | | | | | 1101.59 | 1106.20 | |
| 1/7/2019 | 1102.37 | | | | | | | 1101.24 | 1106.20 | |
| 2/4/2019 | | | | | | | | 1101.34 | 1106.30 | |
| 3/12/2019 | | | | | | | | 1101.34 | 1106.20 | |
| 4/8/2019 | | | | | | | | 1101.39 | 1106.05 | |
| 5/14/2019 | | | | | | | | 1101.34 | 1106.00 | |
| 6/6/2019 | | | | | | | | 1101.54 | 1106.00 | |
| 7/17/2019 | 1102.17 | 1146.83 | 1150.80 | 1124.21 | 1146.61 | 1152.61 | 1144.19 | 1101.24 | 1106.10 | |
| 8/8/2019 | | | | | | | | 1101.24 | 1105.90 | |
| 9/11/2019 | | | | | | | | 1101.34 | 1106.10 | |
| 10/1/2019 | | | | | | | | 1101.29 | 1106.20 | |
| 11/8/2019 | | | | | | | | 1101.34 | 1106.05 | |
| 12/21/2019 | | | | | | | | 1101.34 | 1106.10 | |
| 1/20/2020 | 1102.57 | 1146.63 | 1150.65 | 1124.26 | 1146.81 | 1152.90 | 1144.24 | 1101.04 | 1106.10 | |
| 2/5/2020 | | | | | | | | 1101.35 | 1106.20 | |
| 3/16/2020 | | | | | | | | 1101.33 | 1106.10 | |
| 4/23/2020 | | | | | | | | 1101.34 | 1106.10 | |
| 5/6/2020 | | | | | | | | 1101.34 | 1106.00 | |
| 6/15/2020 | | | | | | | | 1101.44 | 1105.90 | |
| 7/9/2020 | 1102.17 | 1146.53 | 1150.70 | 1124.21 | 1146.71 | 1152.81 | 1144.79 | 1100.89 | 1105.90 | |
| 8/23/2020 | | | | | | | | 1101.14 | 1105.90 | |
| 9/13/2020 | | | | | | | | 1101.14 | 1105.95 | |
| 10/6/2020 | | | | | | | | 1101.24 | 1105.90 | |
| 11/4/2020 | | | | | | | | 1101.24 | 1105.90 | |
| 12/18/2020 | | | | | | | | 1101.19 | 1105.90 | |

| | | | | PAGE COUNTY LANDFILL | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | TABLE H2 - LEACHATE PIEZOMETER MEASUREMENTS - RESURVEYED ELEVATIONS | | | | | | | | | |
| | | | | | | | | | | |
| | LPZ 1 | LPZ 24 | LPZ 25 | LPZ 29 | LPZ 33 | LPZ 36 | LPZ 38 | LPZ 39 | LPZ 41 | LPZ 2 |
| TOC ELV. | 1122.27 | 1168.23 | 1167.80 | 1141.56 | 1166.21 | 1167.91 | 1164.89 | 1120.04 | 1116.07 | 1113.50 |
| Depth | 23.70 | 24.20 | 19.50 | 20.30 | 20.20 | 22.60 | 23.30 | 18.92 | | 11.00 |
| | | 2.00 | | | 5.50 | 5.00 | | | | |
| Year | 10/02 | 2010 | 10/02 | 10/02 | 2010 | 2010 | 10/02 | 10/09 | 9/17 | 7/25 |
| Old TOC Elv. | | | | | | | | 1111.04 | | |
| New Depth | 23.70 | 26.20 | 19.50 | 20.30 | 25.70 | 27.60 | 23.30 | 18.92 | | |
| New TOC Elv. | 1122.27 | 1170.23 | 1167.80 | 1141.56 | 1171.71 | 1172.91 | 1164.89 | 1120.04 | 1117.60 | 1113.50 |
| bottom Elv | 1098.57 | 1144.03 | 1148.30 | 1121.26 | 1146.01 | 1145.31 | 1141.59 | 1101.04 | 1106.00 | 1102.50 |
| | | | | | | | | | | |
| DATE | LEACHATE ELEVATIONS | | | | | | | | | |
| 1/7/2021 | 1102.42 | 1147.03 | 1150.80 | 1124.66 | 1146.71 | 1152.76 | 1144.29 | 1101.19 | 1106.18 | |
| 2/15/2021 | | | | | | | | 1101.29 | 1106.15 | |
| 3/11/2021 | | | | | | | | 1101.29 | 1106.20 | |
| 4/13/2021 | | | | | | | | 1101.34 | 1106.05 | |
| 5/17/2021 | | | | | | | | 1101.24 | 1106.05 | |
| 6/7/2021 | | | | | | | | 1101.24 | 1106.00 | |
| 7/19/2021 | 1102.27 | 1146.63 | 1150.60 | 1124.25 | 1146.61 | 1152.71 | 1144.39 | 1101.04 | 1106.05 | |
| 8/5/2021 | | | | | | | | 1101.04 | 1106.00 | |
| 9/9/2021 | | | | | | | | 1101.14 | 1106.05 | |
| 10/19/2021 | | | | | | | | 1101.24 | 1106.10 | |
| 11/4/2021 | | | | | | | | 1101.24 | 1106.00 | |
| 12/10/2021 | | | | | | | | 1101.22 | 1106.05 | |
| 1/10/2022 | 1102.37 | 1146.73 | 1150.6 | 1124.46 | 1146.71 | 1152.71 | 1144.24 | 1101.04 | 1106.19 | |
| 2/8/2022 | | | | | | | | 1101.34 | 1106.10 | |
| 3/14/2022 | | | | | | | | 1101.29 | 1106.10 | |
| 4/8/2022 | | | | | | | | 1101.44 | 1106.00 | |
| 5/9/2022 | | | | | | | | 1101.29 | 1105.97 | |
| 6/6/2022 | | | | | | | | 1101.24 | 1105.95 | |
| 7/11/2022 | 1102.17 | 1146.63 | 1150.5 | 1124.24 | 1146.51 | 1152.61 | 1144.29 | 1100.94 | 1105.90 | |
| 8/1/2022 | | | | | | | | 1101.09 | 1105.99 | |
| 9/12/2022 | | | | | | | | 1101.19 | 1106.00 | |
| 10/3/2022 | | | | | | | | 1101.29 | 1106.05 | |
| 11/9/2022 | | | | | | | | 1101.23 | 1105.95 | |
| 12/5/2022 | | | | | | | | 1101.24 | 1106.00 | |

| | | | | PAGE COUNTY LANDFILL | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | TABLE H2 - LEACHATE PIEZOMETER MEASUREMENTS - RESURVEYED ELEVATIONS | | | | | | | | | |
| | | | | | | | | | | |
| | LPZ 1 | LPZ 24 | LPZ 25 | LPZ 29 | LPZ 33 | LPZ 36 | LPZ 38 | LPZ 39 | LPZ 41 | LPZ 2 |
| TOC ELV. | 1122.27 | 1168.23 | 1167.80 | 1141.56 | 1166.21 | 1167.91 | 1164.89 | 1120.04 | 1116.07 | 1113.50 |
| Depth | 23.70 | 24.20 | 19.50 | 20.30 | 20.20 | 22.60 | 23.30 | 18.92 | | 11.00 |
| | | 2.00 | | | 5.50 | 5.00 | | | | |
| Year | 10/02 | 2010 | 10/02 | 10/02 | 2010 | 2010 | 10/02 | 10/09 | 9/17 | 7/25 |
| Old TOC Elv. | | | | | | | | 1111.04 | | |
| New Depth | 23.70 | 26.20 | 19.50 | 20.30 | 25.70 | 27.60 | 23.30 | 18.92 | | |
| New TOC Elv. | 1122.27 | 1170.23 | 1167.80 | 1141.56 | 1171.71 | 1172.91 | 1164.89 | 1120.04 | 1117.60 | 1113.50 |
| bottom Elv | 1098.57 | 1144.03 | 1148.30 | 1121.26 | 1146.01 | 1145.31 | 1141.59 | 1101.04 | 1106.00 | 1102.50 |
| | | | | | | | | | | |
| DATE | LEACHATE ELEVATIONS | | | | | | | | | |
| 1/16/2023 | 1102.34 | 1146.63 | 1150.55 | 1124.31 | 1146.76 | 1152.72 | 1144.27 | 1101.09 | 1106.12 | |
| 2/23/2023 | | | | | | | | 1101.10 | 1106.10 | |
| 3/14/2023 | | | | | | | | 1101.09 | 1106.05 | |
| 4/27/2023 | | | | | | | | 1101.04 | 1106.00 | |
| 5/13/2023 | | | | | | | | 1101.24 | 1106.00 | |
| 6/17/2023 | | | | | | | | 1101.24 | 1105.95 | |
| 7/8/2023 | 1102.27 | 1146.68 | 1150.5 | 1124.21 | 1146.21 | 1152.66 | 1144.29 | 1101.09 | 1105.85 | |
| 8/21/2023 | | | | | | | | 1101.19 | 1105.97 | |
| 9/23 | | | | | | | | 1101.09 | 1105.98 | |
| 10/23 | | | | | | | | 1101.24 | 1105.97 | |
| 11/23 | | | | | | | | 1101.13 | 1105.97 | |
| 12/11/2023 | | | | | | | | 1101.17 | 1105.97 | |
| 1/24 | | | | | | | | 1101.11 | 1106.00 | DNE |
| 2/24 | | | | | | | | 1101.09 | 1105.97 | DNE |
| 3/24 | | | | | | | | 1101.09 | 1105.97 | DNE |
| 4/24 | | | | | | | | 1101.14 | 1106.00 | DNE |
| 5/24 | | | | | | | | 1101.13 | 1106.00 | DNE |
| 6/24 | | | | | | | | 1101.14 | 1105.98 | DNE |
| 7/24 | 1102.3 | 1146.63 | 1150.52 | 1124.26 | 1146.36 | 1142.7 | 1164.89 | 1101.14 | 1105.98 | DNE |
| 8/24 | | | | | | | | 1101.13 | 1105.99 | DNE |
| 9/24 | | | | | | | | 1101.13 | 1105.97 | 1102.50 |
| 10/24 | | | | | | | | 1101.13 | 1105.97 | 1102.50 |
| 11/24 | | | | | | | | 1101.14 | 1105.99 | 1102.50 |
| 12/24 | | | | | | | | 1101.14 | 1105.99 | 1102.50 |